

22nd

INTERNATIONAL
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APRIL 4 - 5, 2025

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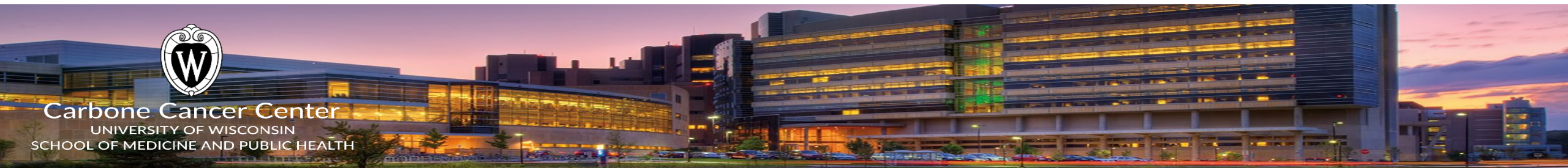
This activity is jointly provided by:



Improving HRQoL for Patients with Lymphoma

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Disclosures

- Advisory Board: SeaGen, ADC therapeutics, Genentech, Abbvie
- Research funding to institution: SeaGen, Marker therapeutics, Fate therapeutics
- I will not discuss any off-label drug use

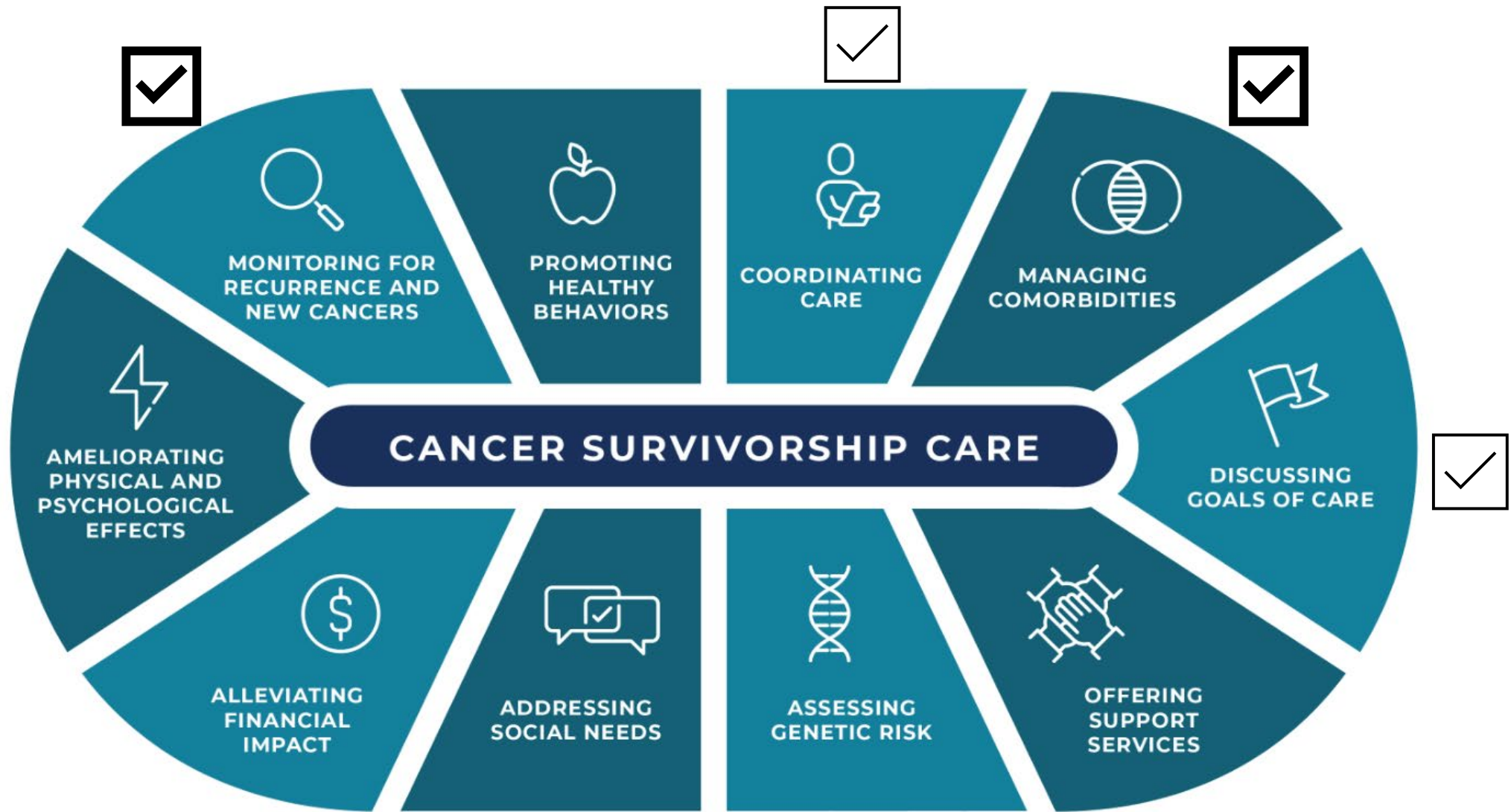
Outline

- Review current understanding of HRQOL in different lymphomas
- Consider the clinical applications of patient reported outcomes (PROs) in lymphoma clinic
- Major unmet needs of lymphoma survivors
- How can we improve symptom management for patients with lymphoma?

A Cancer Survivor is a person from the time of cancer diagnosis through the remainder of their life

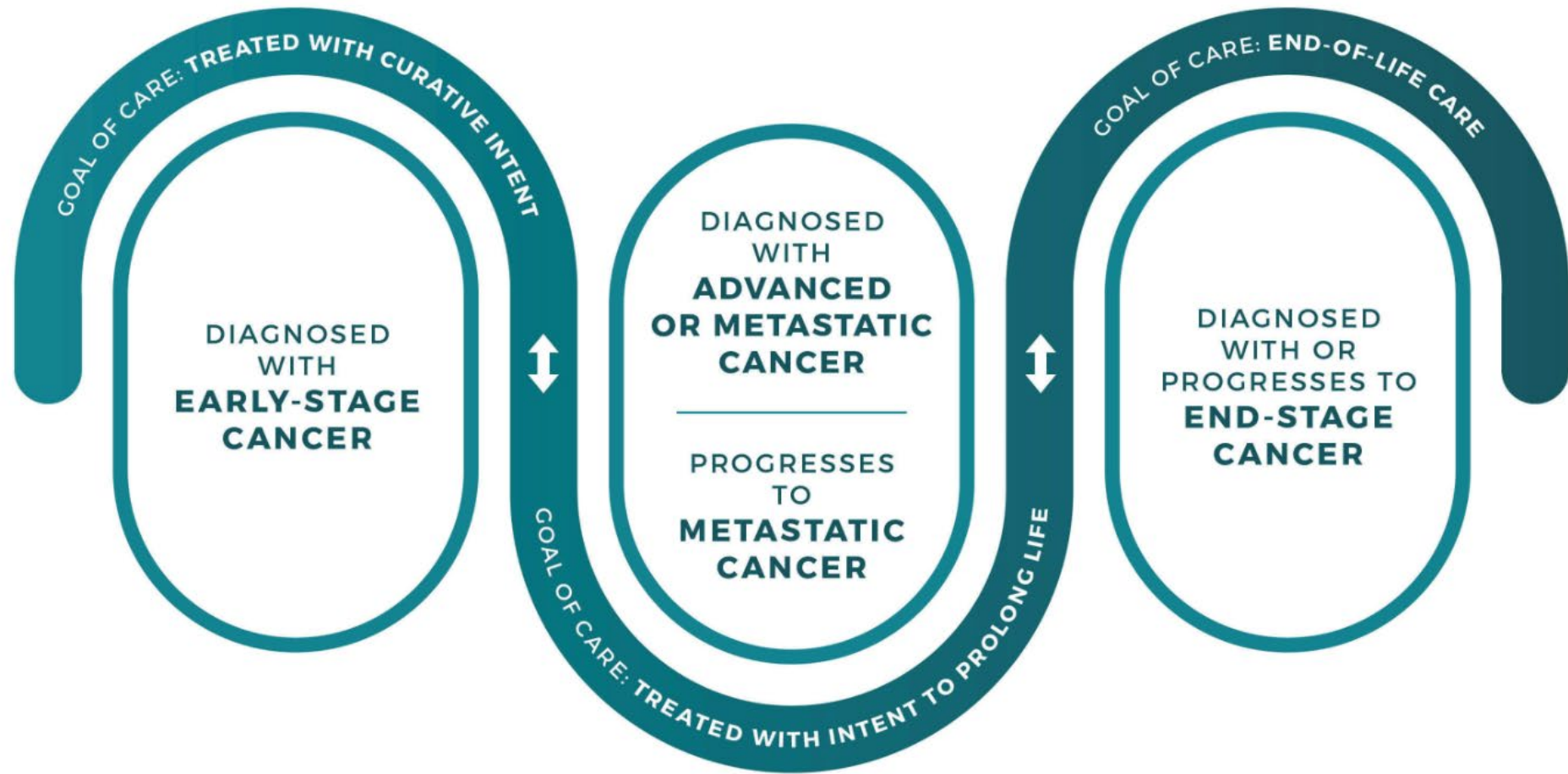


Definition of Cancer Survivorship, definition and graphic developed by the National Cancer Institute

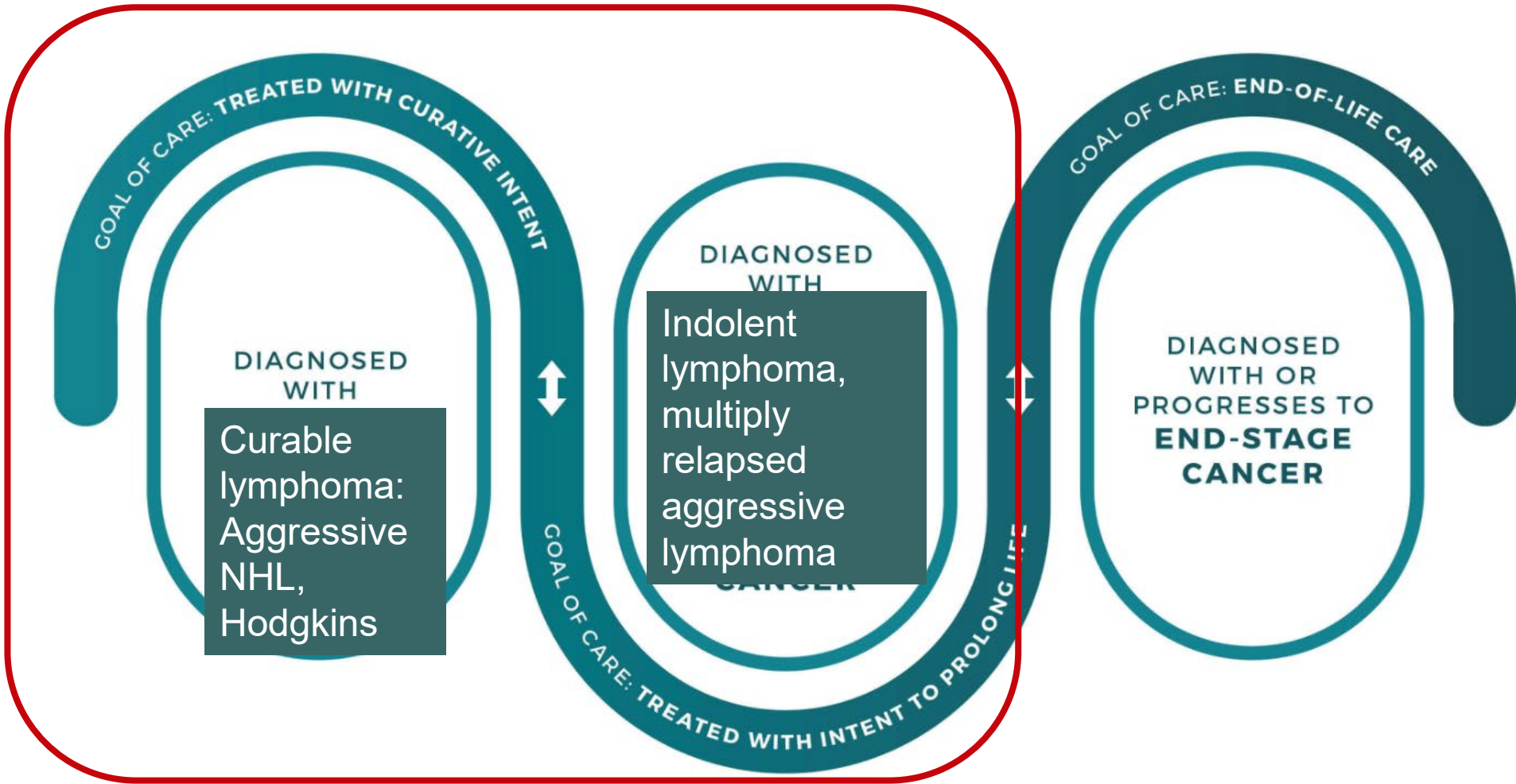


Cancer Survivorship Care, graphic created by the National Cancer Institute and adapted from the National Standards for Cancer Survivorship Care

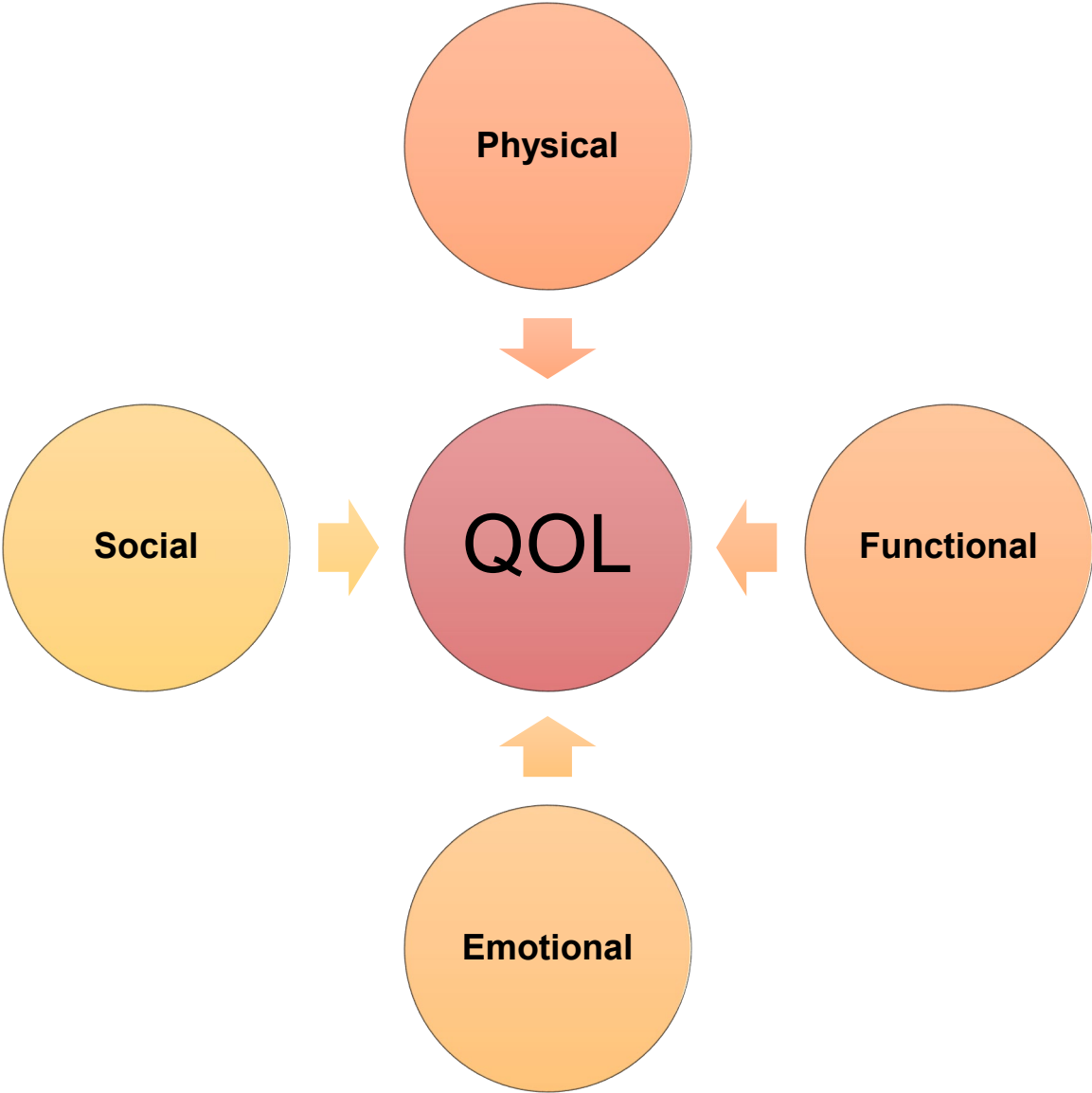
Phases of cancer survivorship



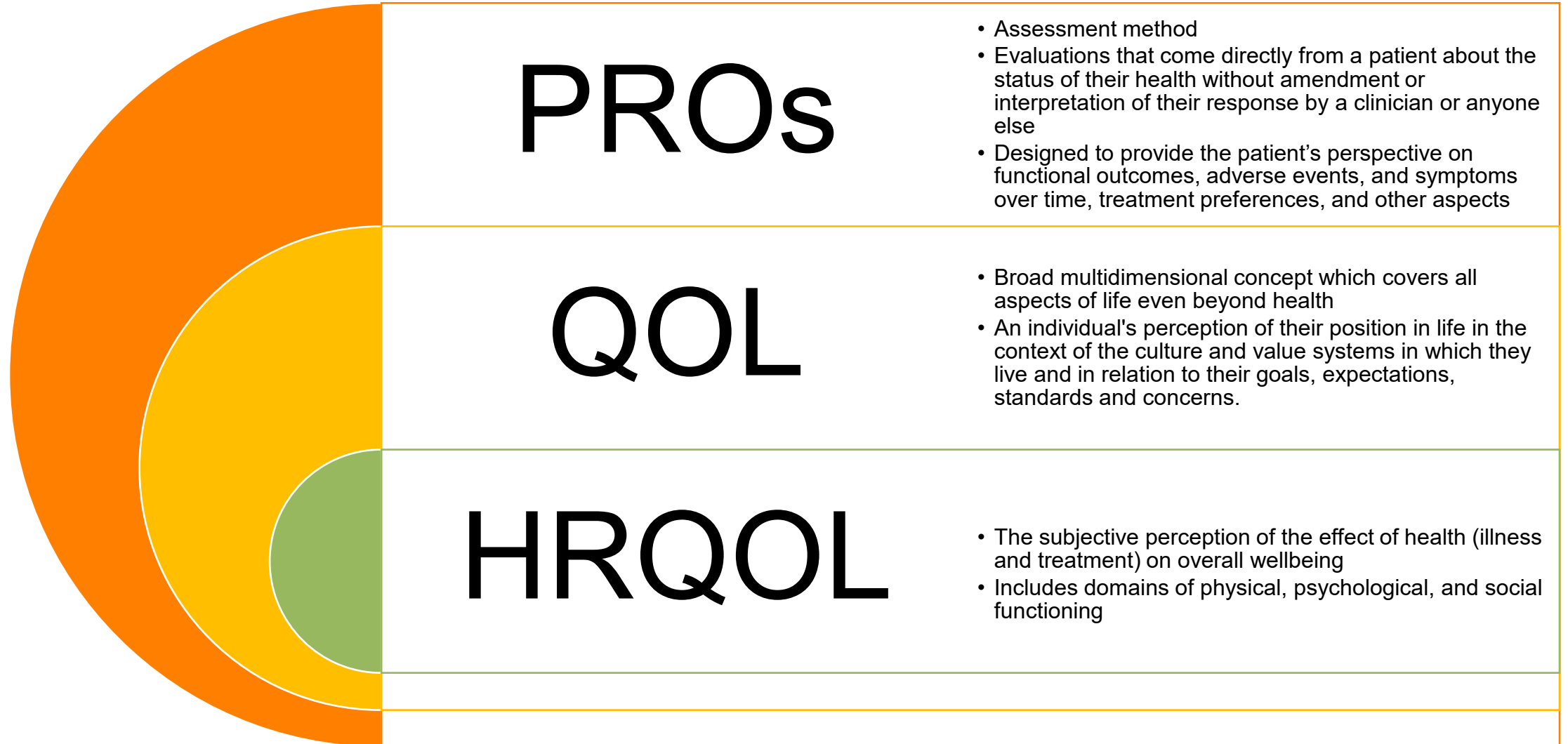
Lymphoma survivorship experience



What is Quality of Life?



Definitions



HRQOL measure	FACT-G	FACT-Lym	EORTC QLQ-C30	SF-36	PROMIS-29	EQ-5D
Cancer patients or general population	Cancer	Cancer	Cancer	General	General	General
Validated for lymphoma (Y/N)	Y	Y	N	N	N	N
# of items	27	42	30	36	29	5
Lymphoma-specific symptom assessment		X				
Generic cancer symptom assessment	X	X	X			
Domains assessed						
Physical functioning	X	X	X	X	X	X
Emotional functioning	X	X	X	X	X	X
Fatigue	X	X	X		X	
Pain/discomfort	X	X	X	X	X	X
Social wellbeing	X	X	X	X	X	
Cognitive functioning			X			
Role functioning			X	X		
Sleep					X	
Vitality				X		
General health perception				X		
Mental health				X		
Visual analog score						X

HRQOL Profile Of Newly Diagnosed Lymphomas

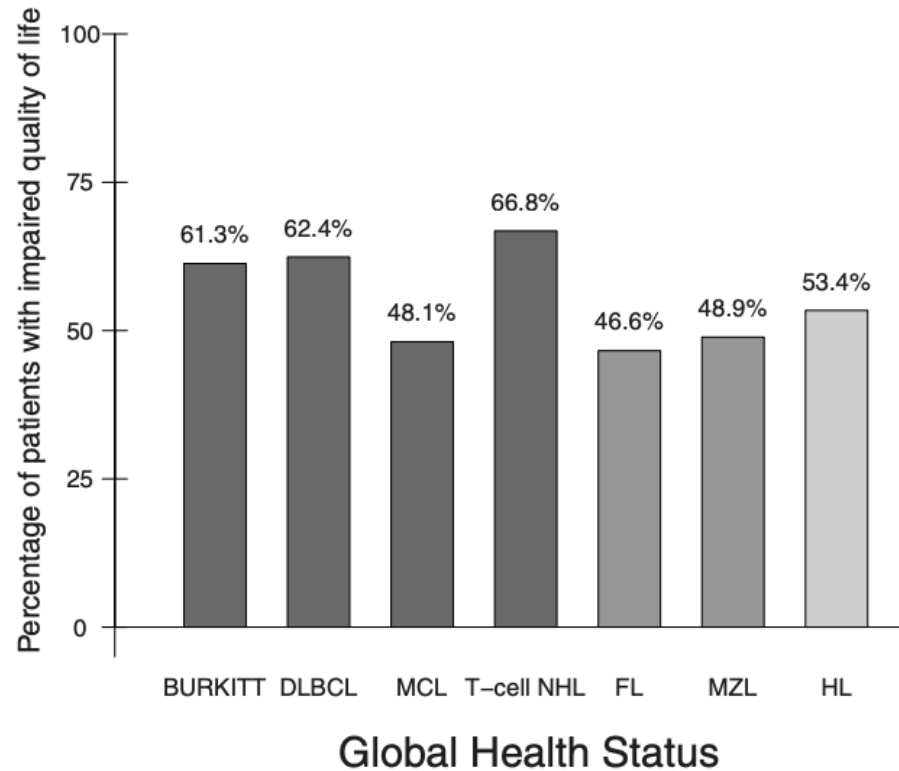


Fig. 2. Proportion of patients presenting an impaired quality of life per lymphoma subtype for global health status and fatigue dimensions, *DLBCL: diffuse large B-cell lymphoma; FL: follicular lymphoma; LDH: lactate dehydrogenase, MCL: mantle Cell lymphoma; MZL: marginal zone Lymphoma; T-cell NHL: T-cell non-Hodgkin lymphoma*. The following thresholds were used in order to indicate clinically important problems/symptoms: lower than 70 for global health status; higher than 39 for fatigue.

HRQOL in T-cell NHL

- Systematic review of literature 24 studies of patients with CTCL (MF & SS):
 - The effect on QoL in patients with late-stage disease > early stage disease
 - Significant impairments on functional, emotional and physical domains
 - Even in patients with limited disease, QoL was mildly to moderately affected.
 - Overall, pruritus was the most frequent reported and most bothersome symptom- affected sleep.
 - Significant influence of the disease on daily life activities were found, not only in patients but also on caregivers and family.
- Need for CTCL-specific guidelines for supportive care for patients and caregivers.

HRQOL in HL

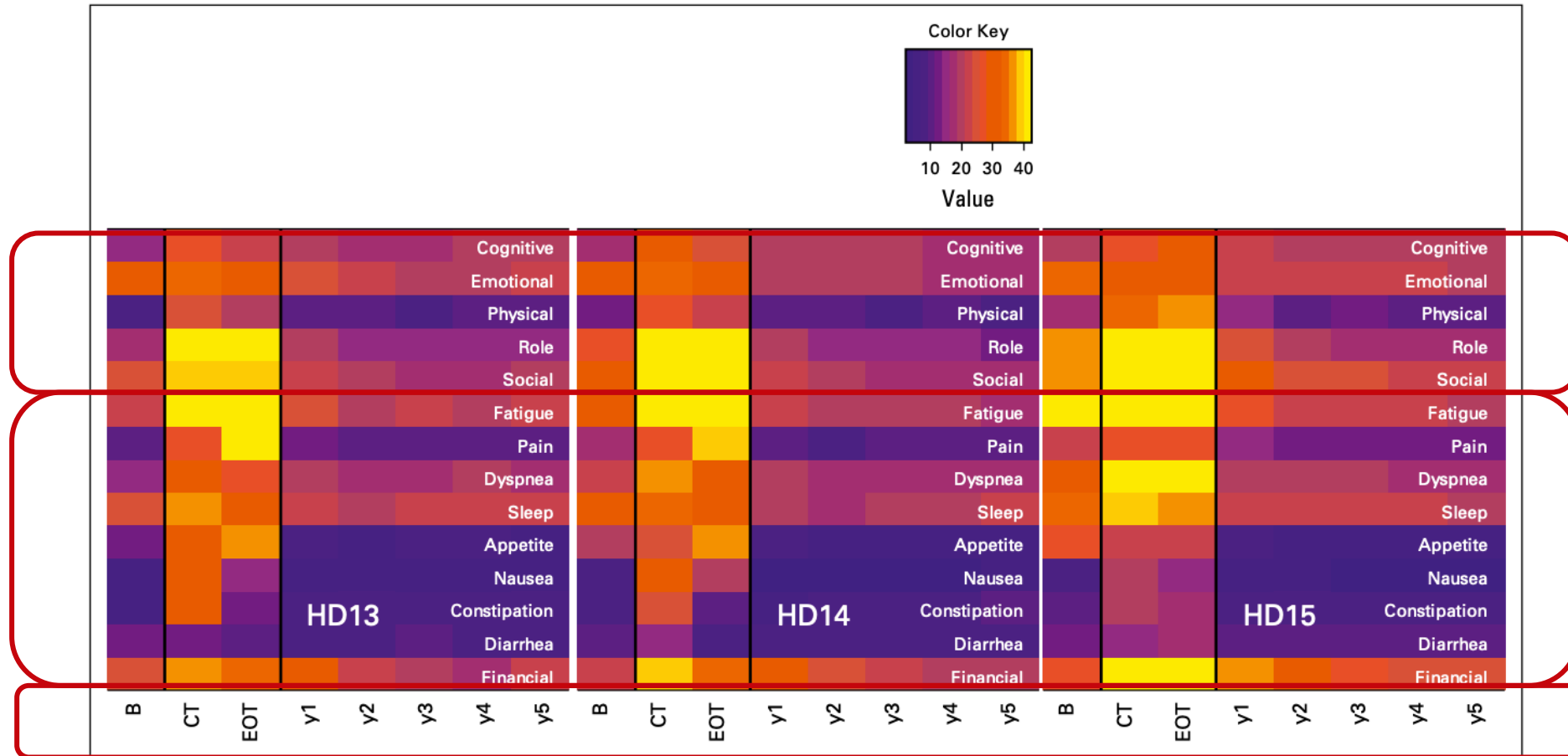


FIG 2. Heat maps of health-related quality-of-life (HRQoL) deficits in the HD13, HD14, and HD15 trials at baseline (B), during chemotherapy (CT), at end of treatment (EOT), and at up to 5 years of survivorship (y1-y5). The first 5 rows describe impairments of HRQoL in 5 functioning areas, the remaining rows describe increased symptoms as measured with the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire C30. Colors represent decreased HRQoL compared with the general population, and deficits > 10 are clinically relevant. Small, irrelevant deviations are shown in blue colors, and clinically relevant deficits increase from dark purple to bright yellow.

HRQOL in HL

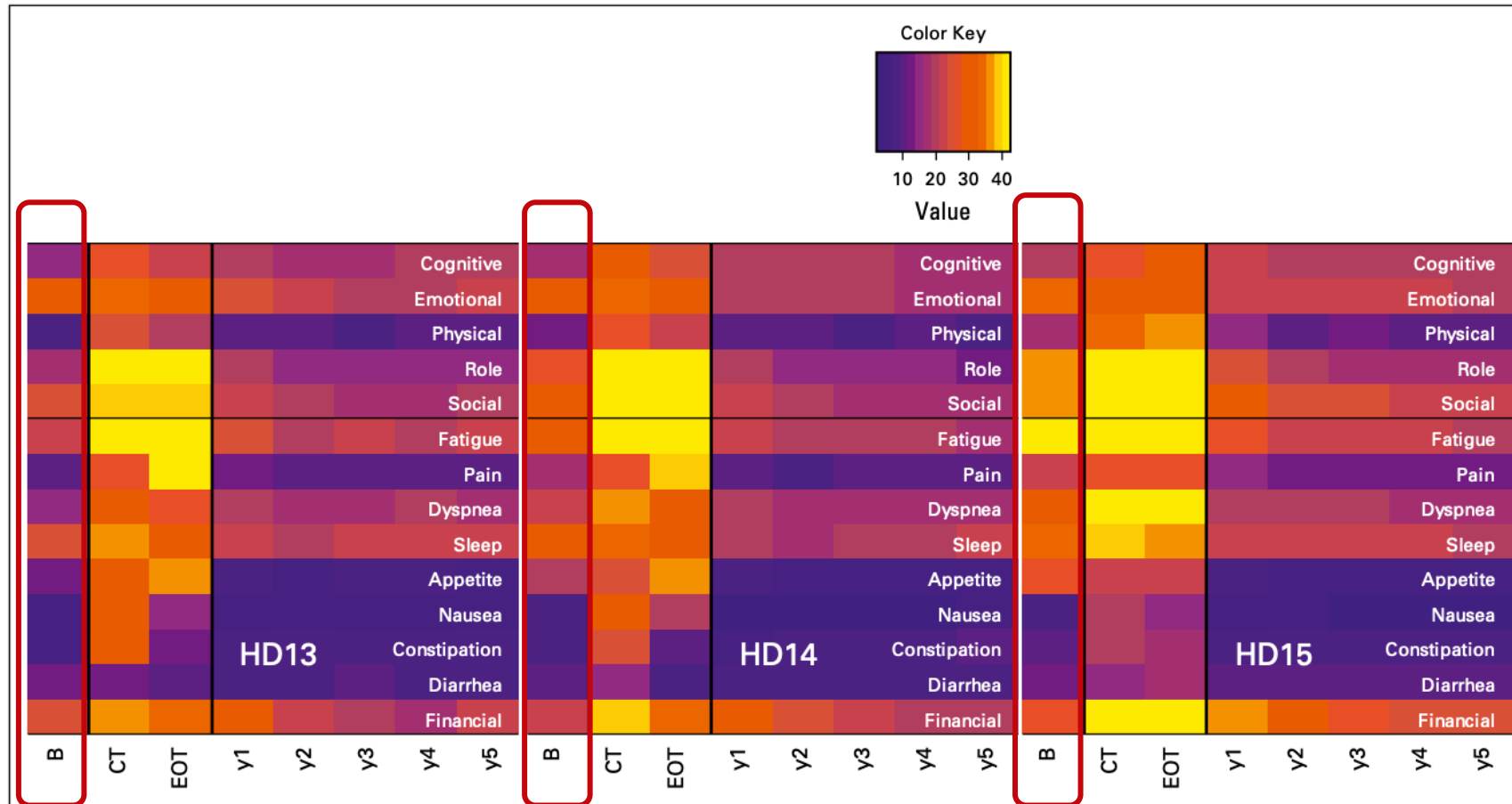


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HRQOL in HL

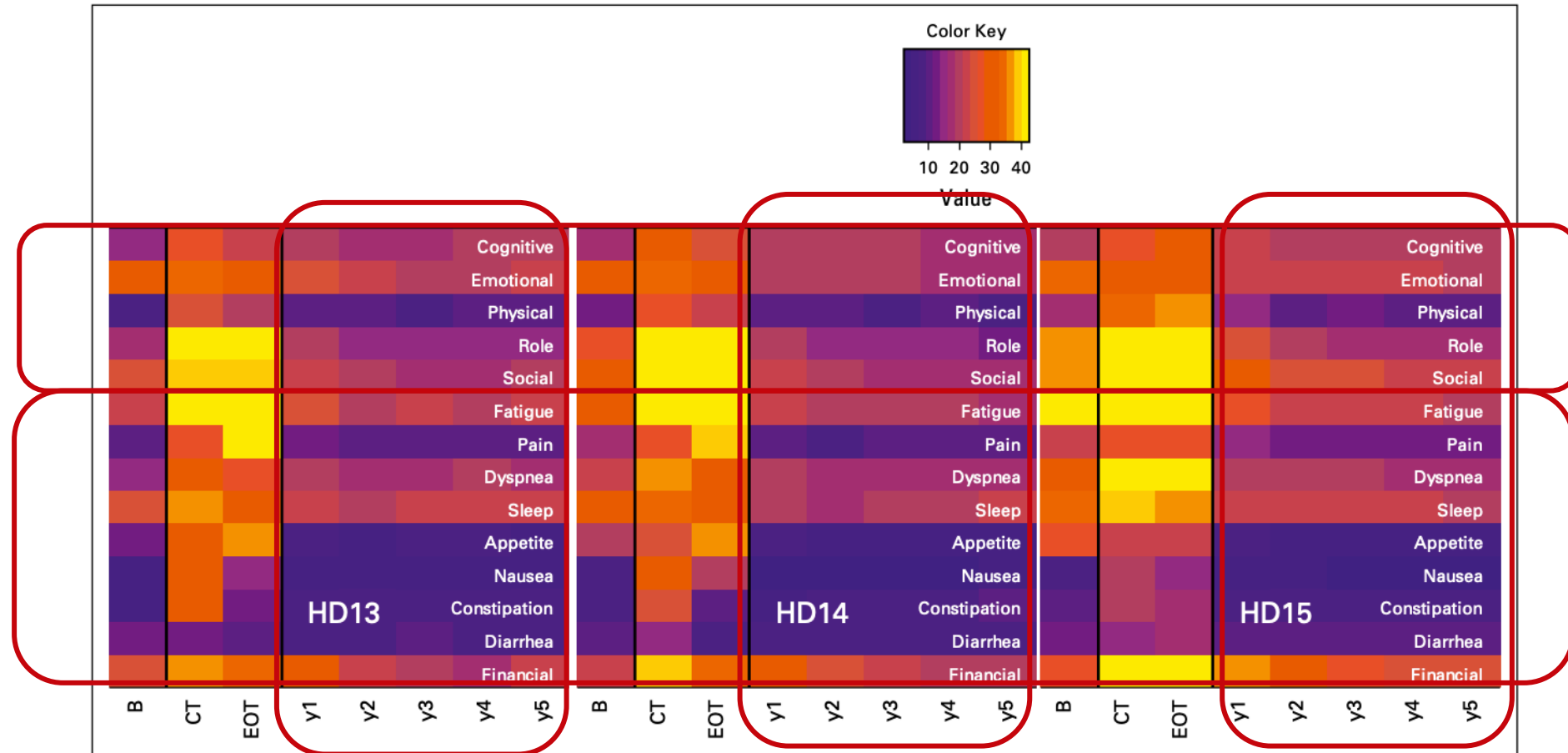


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HRQOL At Diagnosis Can Be Predictive Of OS And EFS

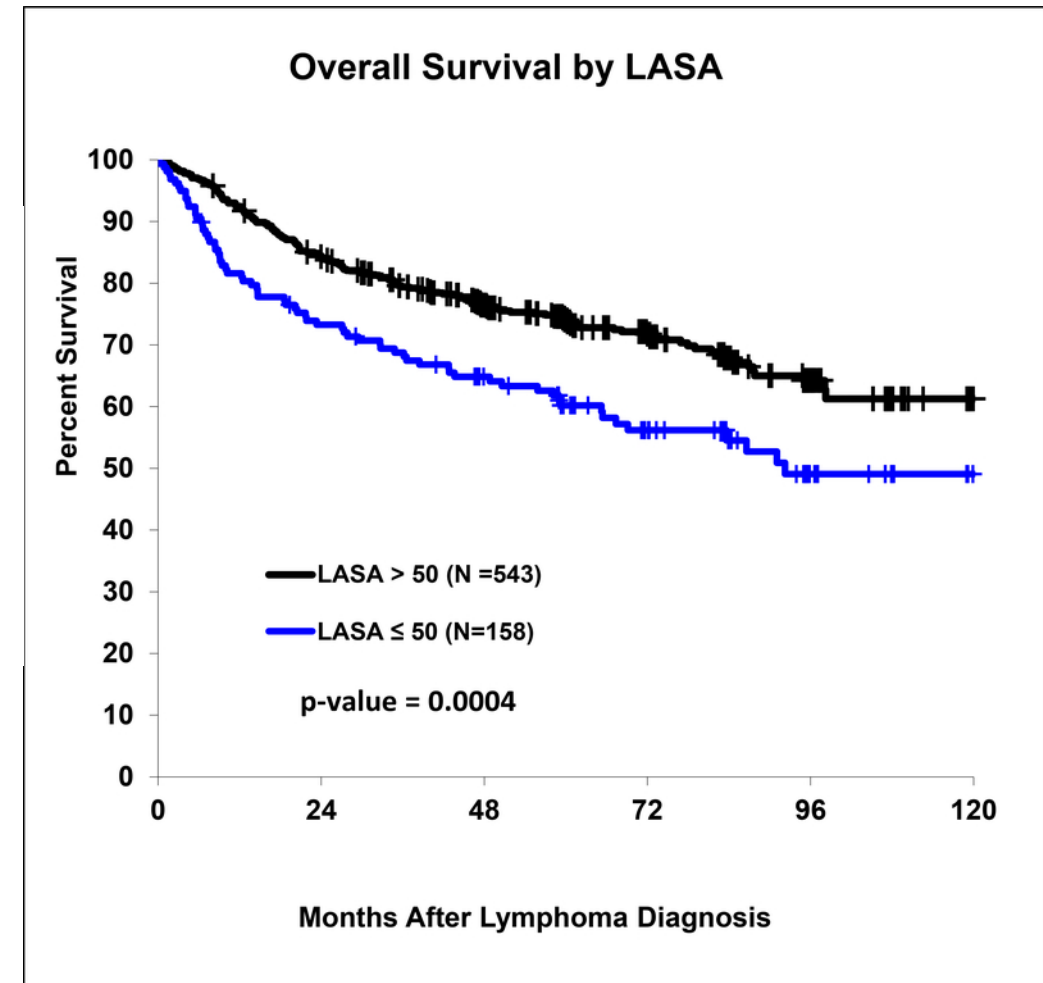
Additional file 1. LASA QOL Assessment scale used in studies

Directions: Please circle the number (0-10) best reflecting your response to the following that describes your feelings **during the past week, including today.**

How would you describe:

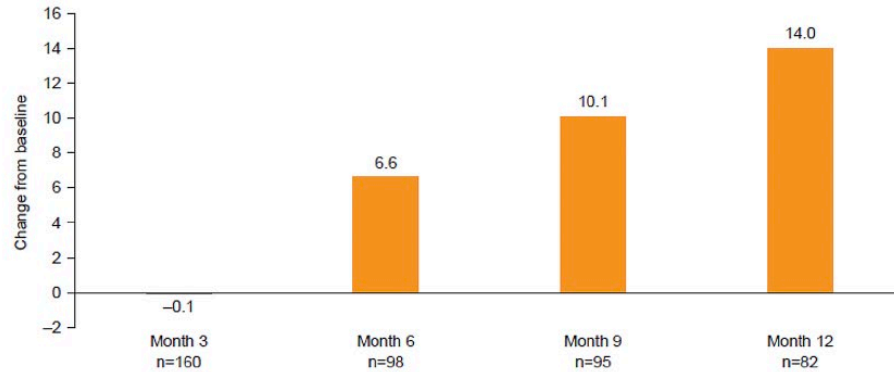
1. **your overall Quality of Life?**

0	1	2	3	4	5	6	7	8	9	10
As bad as it can be										As good as it can be

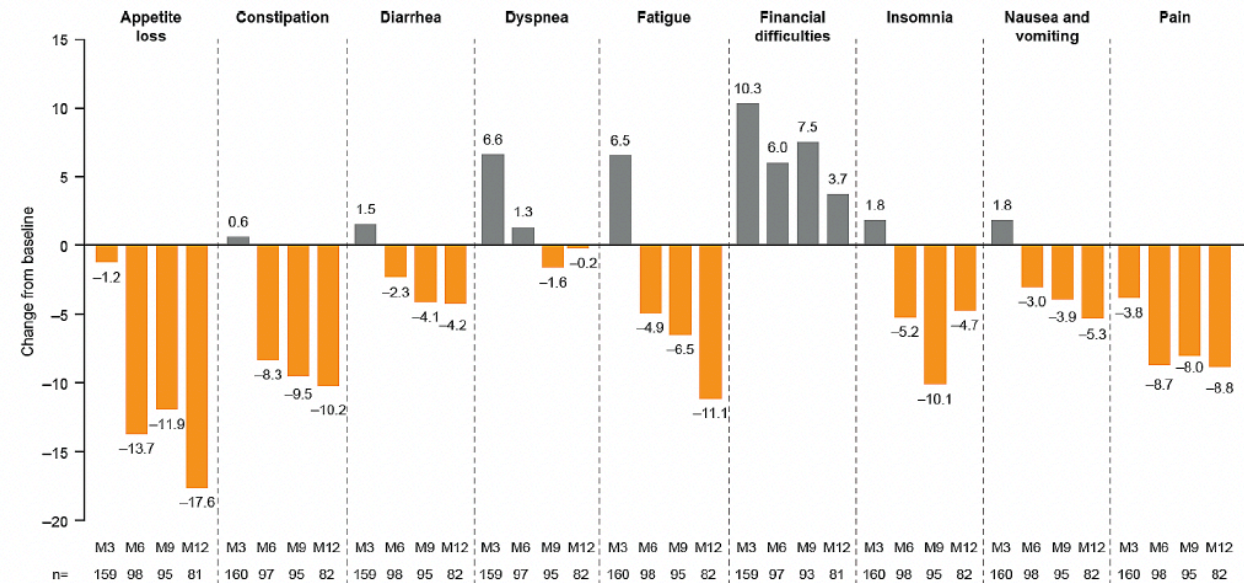


HRQOL in DLBCL treated with RCHOP

(a)

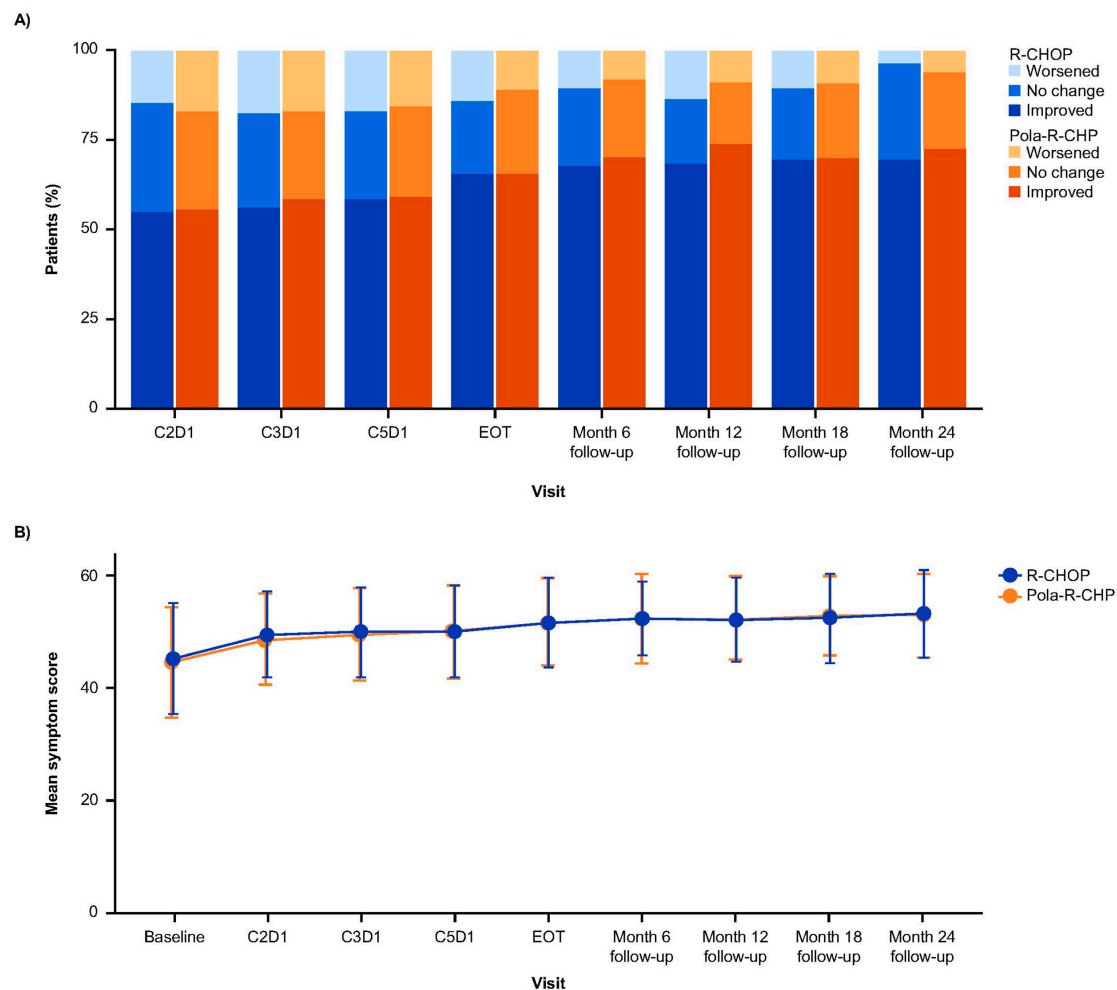


- Improved global health status at 9 month older > younger pts
- Greater improvement for stage III/IV, high IPI at 3 & 6 months



HRQOL in DLBCL treated with RCHOP vs Pola-RCHP

Figure. FACT-LymS lymphoma symptom score* A) clinically meaningful difference in symptom score[†] B) mean changes over time[‡]



*Scored on a subscale of 0–60, with higher scores representing fewer symptoms

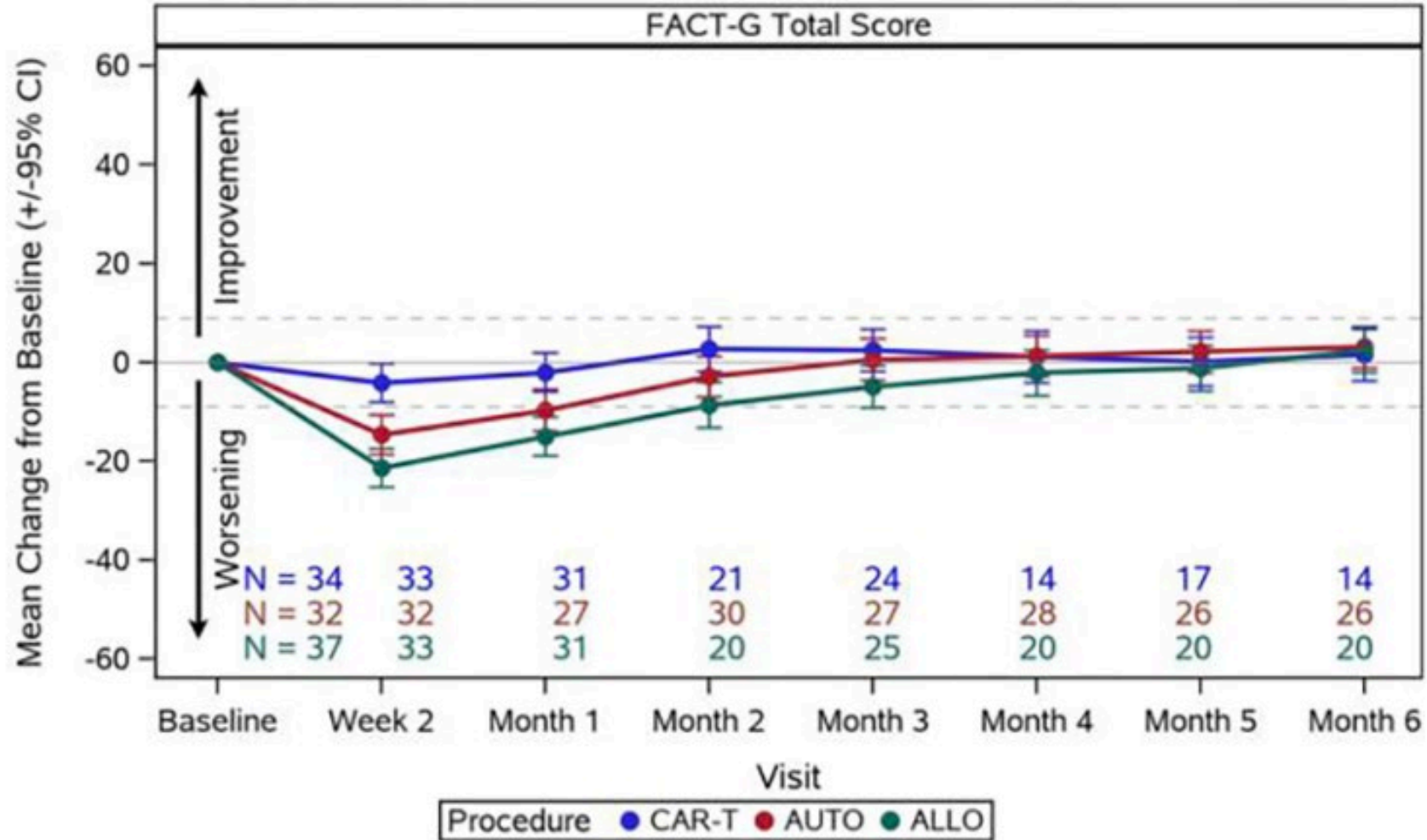
[†]Clinically meaningful difference in symptom score: clinically meaningful difference in symptom score categorized by improvement, worsening, or no change were defined as ≥ 3 -point increase, ≥ 3 -point decrease, and in between, respectively

[‡]Error bars represent mean score \pm one standard deviation

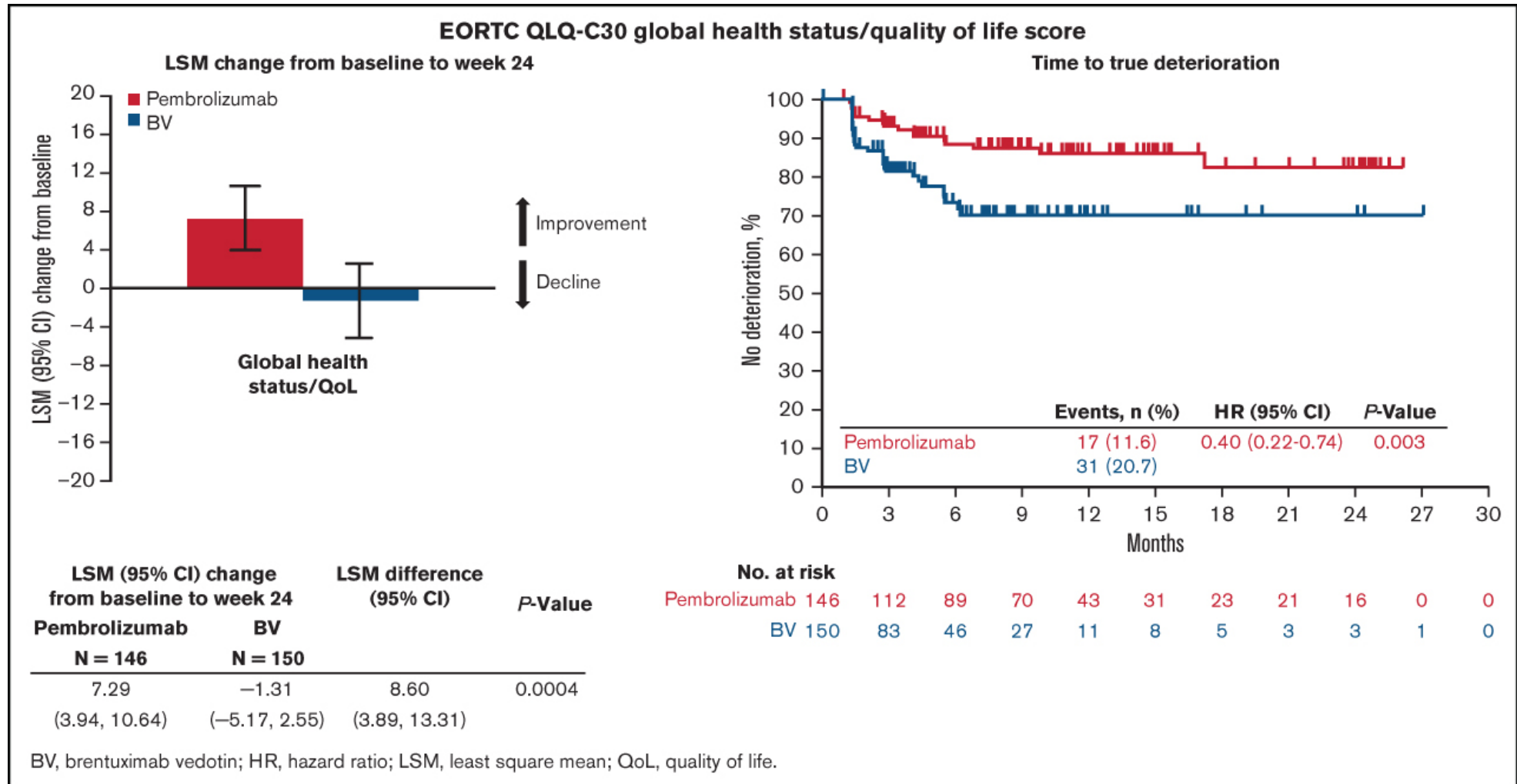
C, Cycle; D, Day; EOT, end of treatment; FACT-LymS, Functional Assessment of Cancer Therapy-Lymphoma Subscale; Pola-R-CHP, polatuzumab vedotin plus rituximab, cyclophosphamide, doxorubicin, and prednisone; R-CHOP, rituximab plus cyclophosphamide, doxorubicin, vincristine, and prednisone

Friedberg et al. *Blood* (2022) 140 (Supplement 1): 6623–6626.

HRQOL With Cellular Therapies

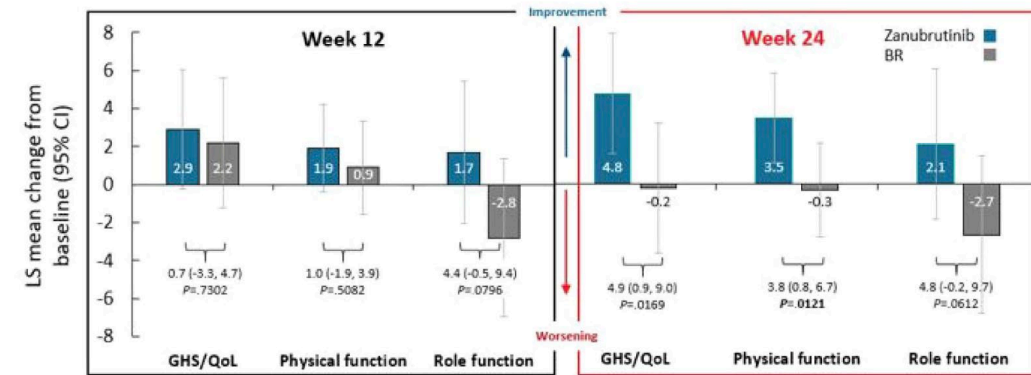
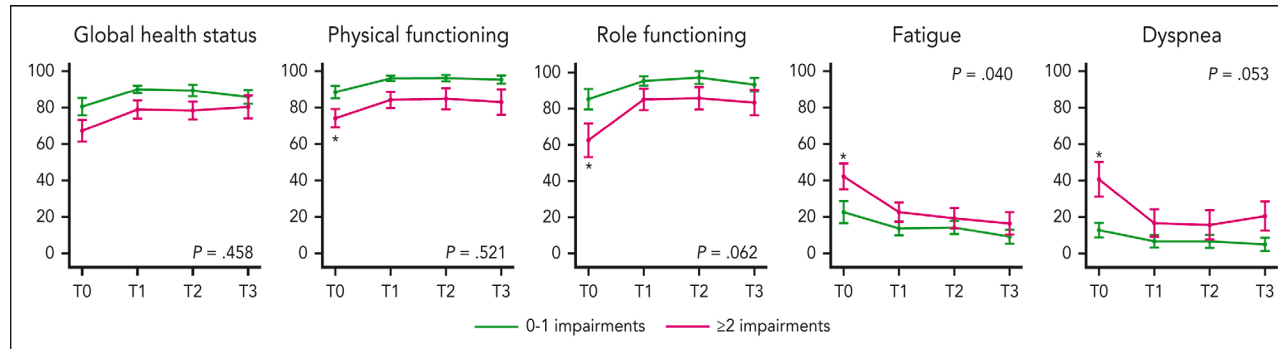
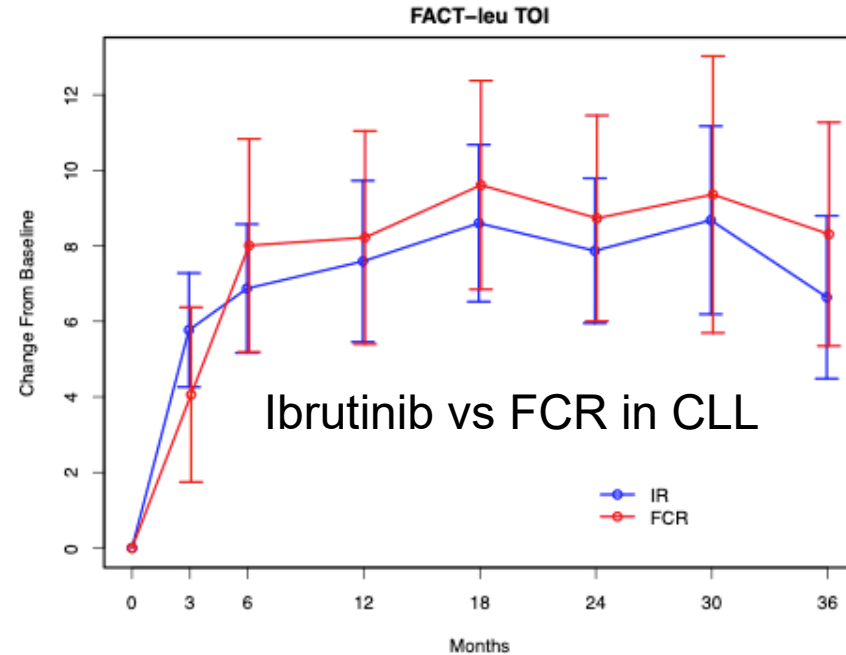


HRQOL In Relapsed Lymphomas

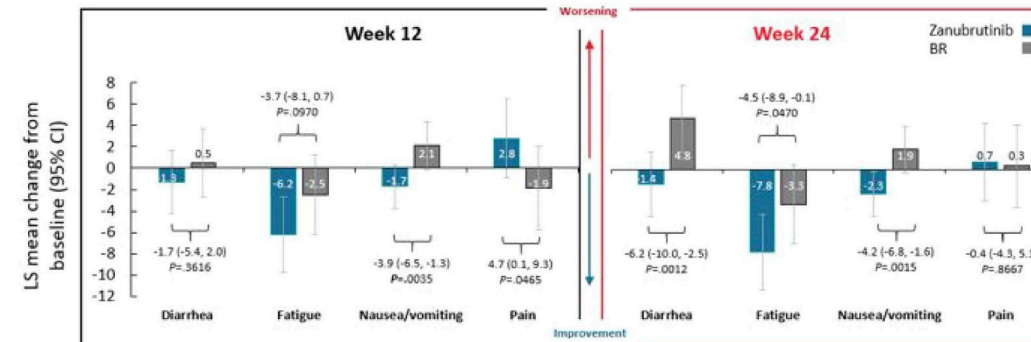


HRQOL In Chronic Lymphomas Treated With Novel Agents- emerging data

Figure 1. Mean and 95% confidence interval of change in FACT-Leu TOI from baseline by treatment arm.



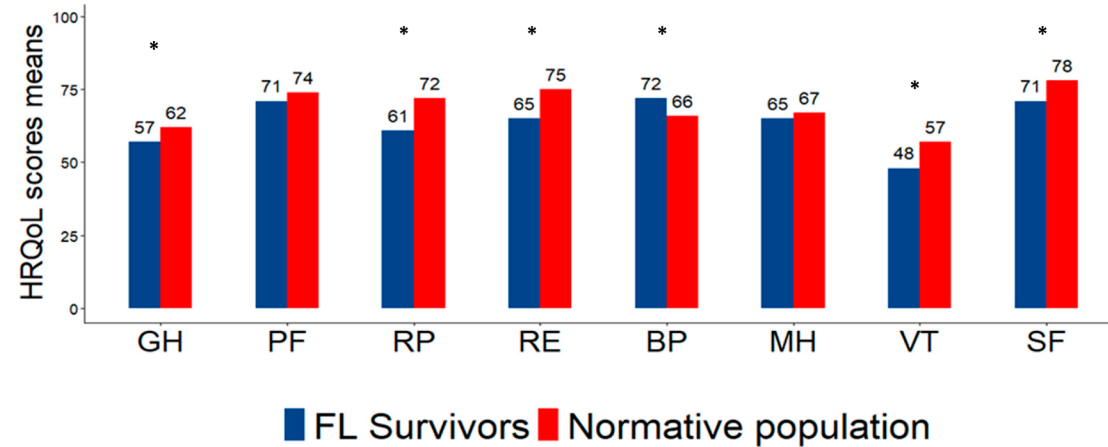
B. Symptom Scales



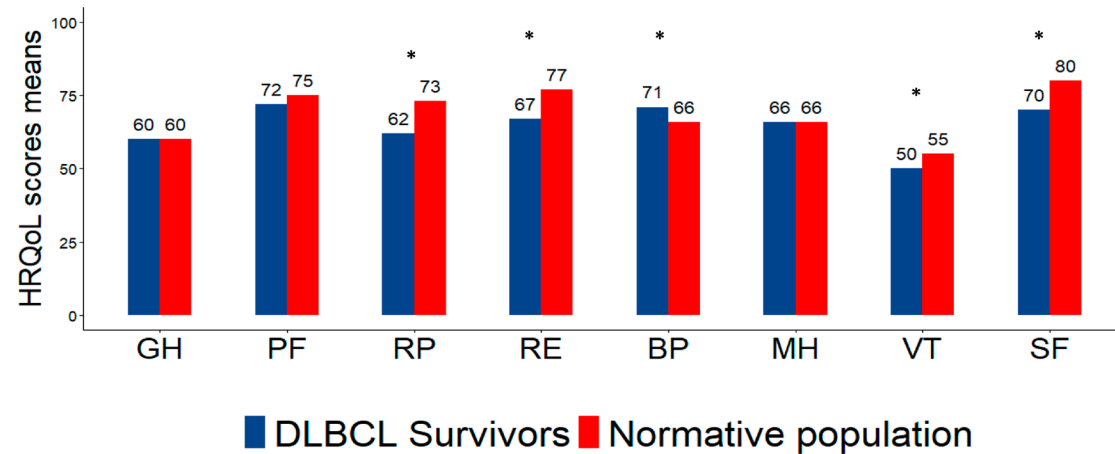
Ven-O in older pts with CLL

Pophali et al. *Blood* (2021) 138 (Supplement 1): 1562.
 Van der Straten et al. *Blood* (2023) 142 (13): 1131-1142.
 Ghia et al. *Current Medical Research and Opinion*, 39(11), 1505-1511.

HRQoL >5 Years Post Lymphoma Diagnosis is worse than general population



(a)



(b)

Subscale scores of the SF-12 questionnaire in the normative population matched for age and sex with survivors of follicular lymphoma (a) and diffuse large B-cell lymphoma (b).

GH: general health

PF: physical functioning

RP: role limitations/physical health

RE: role limitations/emotional problems

BP: bodily pain

MH: mental health

VT: vitality

SF: social functioning

Higher scores indicate better HRQoL.

* Significant differences at p -value < 0.05.

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PROs in clinic?

Why incorporate PROs in the clinic?

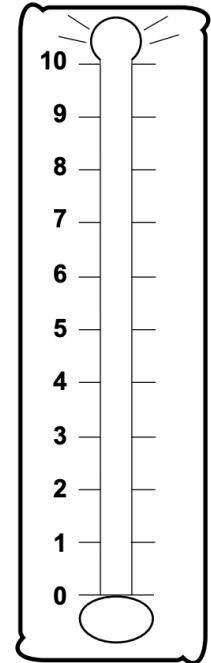
- Multiple studies show that clinicians under-estimate symptoms
 - Improve identification of patient needs
 - Improve reporting of side effects
 - Timely response to side effects or toxicities
 - Enhance patient engagement
 - Improved Quality of Life
 - Remote monitoring may reduce patient visits
 - Reduce in basket messages?
 - Critical for determining impacts of new treatments beyond PFS
 - May improve overall survival

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.

Extreme distress

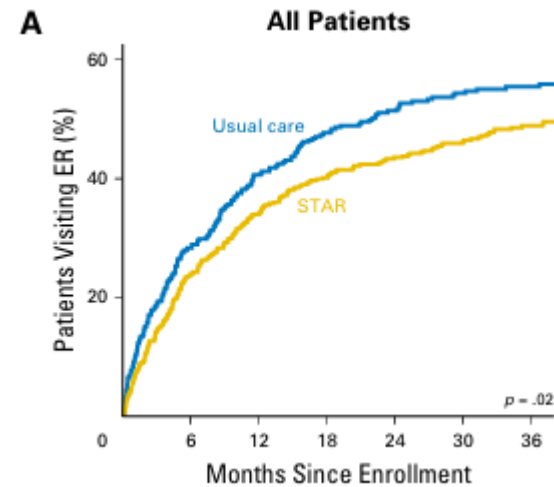
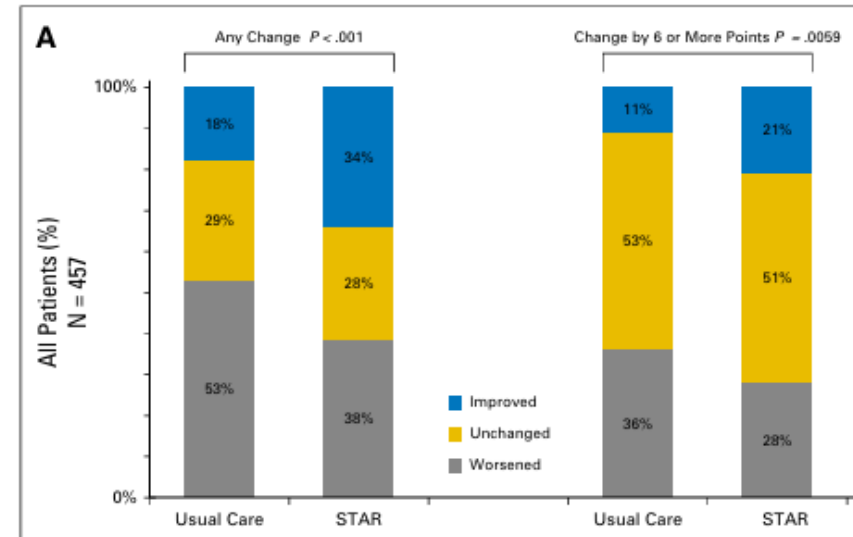


No distress

Patient Reported Outcomes ePROs

- RCT – Memorial Sloan Kettering
- N=766 pts with solid tumors
- Intervention: Tablet computers to assess 12 symptoms vs Usual Care

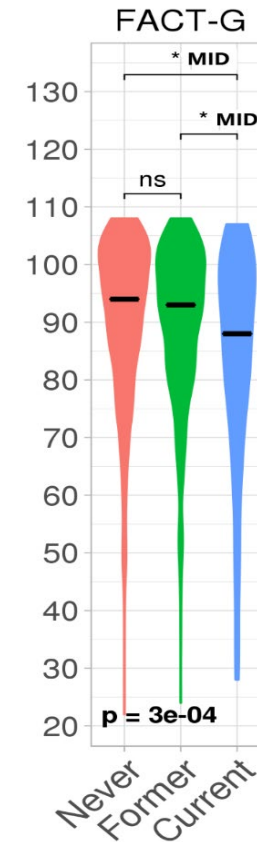
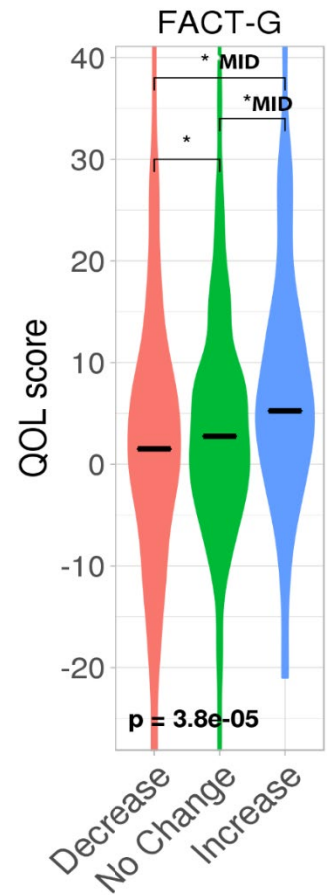
- Improved Quality of Life
- Fewer ED visits
- OS – Alive at 1 year (p=0.05)
 - Intervention – 75%
 - Usual Care – 69%



HRQOL may be Modified by Lifestyle Changes

Meaningful improvements in QOL in 3-year lymphoma survivors was associated with:

- Increasing level of physical activity and not smoking



Implementing PROs in clinic

The PROTEUS Guide to Implementing Patient-Reported Outcomes in Clinical Practice:

A Synthesis of Resources

A Resource from the

PROTEUS
CONSORTIUM

Implementing Patient-Reported Outcome Measures in Clinical Practice: A Companion Guide to the ISOQOL User's Guide

Version 1: January 2018



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PROMIS

June 22-23, 2023
Chicago

4th Annual PROMIS® Training Workshop
Moving from PROMIS basics to advanced use
in clinical and research settings

Takeaways from HRQOL in lymphoma

HRQOL is an independent prognostic factor for survival in aggressive NHL

HRQOL significantly impacted by:

- Symptom burden from disease and its treatments (CTCL- pruritus; peripheral neuropathy)
- Fatigue- across lymphoma types both during and after treatment
- Deficits in emotional and cognitive domains
- Financial concerns and health behaviors

Need to continue to assess HRQOL of newer anti-lymphoma agents that may prolong life without cure

Need to consider incorporation of HRQOL assessments in clinical practice to improve symptom management and better patient-physician communication

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Symptom management and Supportive care in Lymphoma

Acute and Chronic

Systemic treatment-related effects

Immediate / short-term

- GI: Nausea/vomiting, diarrhea/constipation
- Organ toxicity: kidney, liver, skin, lung
- Hair loss
- Appetite and weight
- Fatigue
- Peripheral neuropathy
- “Chemo brain”
- Mood changes
- Sexual function

Late / long-term

- Heart disease
- Secondary cancers
- Lung disease
- Thyroid disease
- Brain: neurocognitive function
- Bone density loss
- Fatigue
- Fertility
- Psychosocial issues

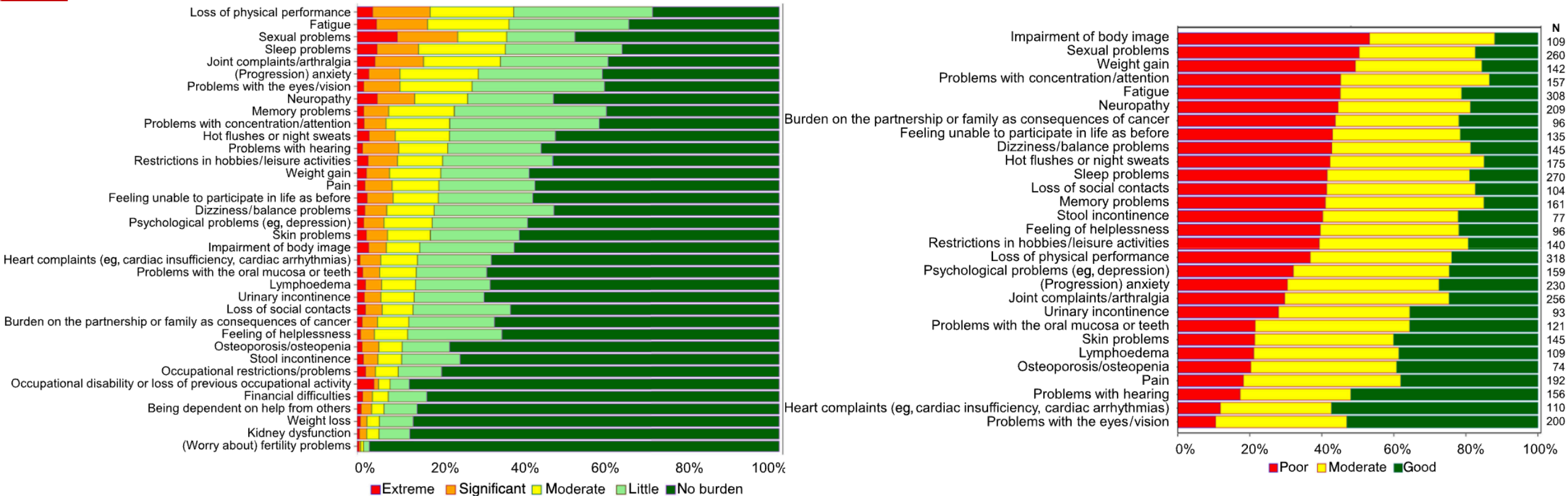
National Guidelines For Supportive Care in Cancer

- Acute toxicities
 - Antiemetics
 - Pain
 - Xerostomia
 - Antimicrobial prophylaxis
 - Management of febrile neutropenia
 - Venous thromboembolism
 - Cancer associated anemia
 - Management of immune-related adverse events (ICI, CART)
- Chronic/late effects
 - Vaccination
 - Cancer cachexia
 - Cancer related fatigue

 - Exercise, Diet and Weight management
 - Smoking cessation
 - Survivorship



Unmet Needs Of Cancer Survivors: mostly those without effective pharmacologic or medical treatment

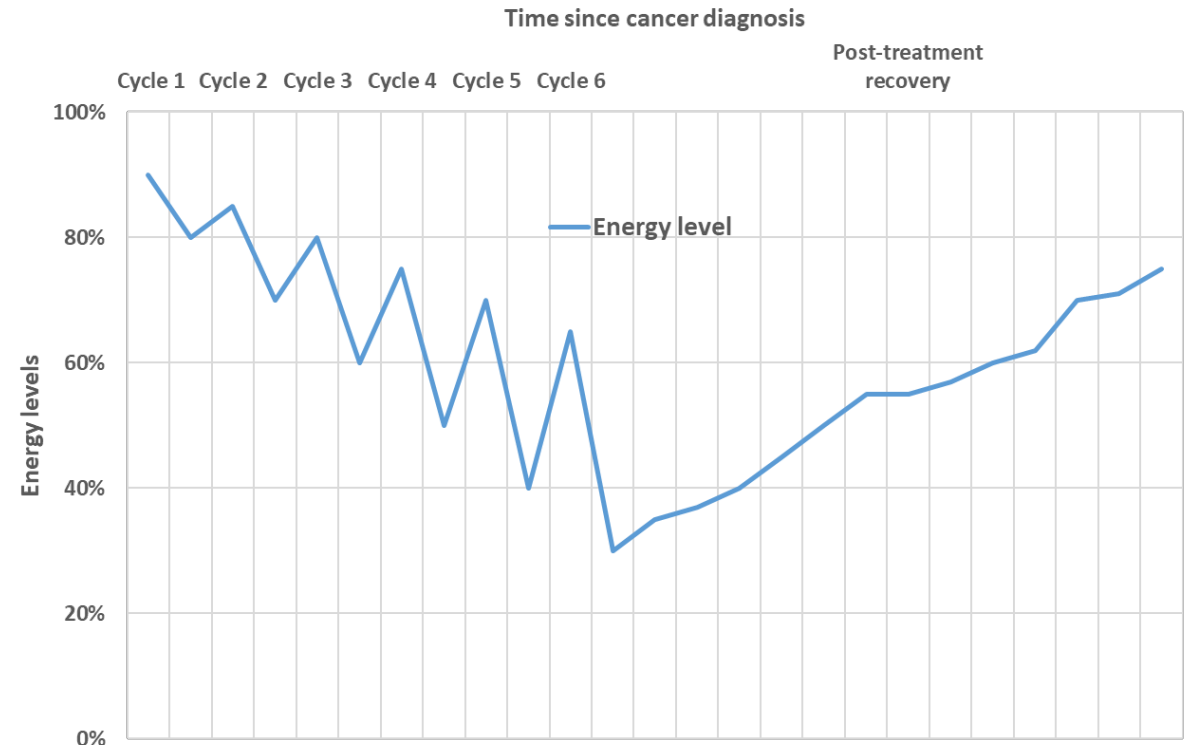


Cancer-related fatigue

- A distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer and/or cancer treatment that is not proportional to recent activity and interferes with usual functioning
- Differs from fatigue in everyday life which is usually temporary and relieved by rest
- Fatigue is rarely an isolated symptom and most commonly occurs in symptom clusters (such as with pain, emotional distress, anxiety, depression, anemia, sleep disturbances)
- 26% of survivors of Hodgkin lymphoma have significant fatigue¹
 - Higher than general population, other cancer types²
- Fatigue associated with higher symptoms of anxiety and PTSD and lower QOL³

Patterns of cancer-related fatigue

- Cyclic during chemotherapy
- Worse towards the end of treatment and gradually improves thereafter
- Most prevalent during active cancer therapy but may persist much longer in 1/3rd of cancer survivors



Causes of cancer-related fatigue

- Medical issues:
 - Cancer therapy
 - Tumor progression
 - Unrelieved pain
 - Low blood counts e.g. anemia
 - Other medical conditions- cardiac, pulmonary, renal, arthritis, neuropathy
 - Medication side-effects
- Metabolic/Nutritional/hormonal issues
- Loss of muscle mass/deconditioning
- Depressed mood, emotional distress and sleep disturbance



Management of cancer-related fatigue

Most
evidence



Least
evidence

- Physical activity
- Psychosocial interventions
 - Cognitive behavioral therapy
 - Psychoeducational therapy
- Mind-body interventions
 - Mindfulness-based approaches
 - Yoga
 - Acupuncture
 - Touch therapy, massage, music therapy, relaxation, reiki, qigong
- Medications (e.g. methylphenidate, steroids)

Evidence-based benefits of exercise

Improves fatigue

Improves depression/anxiety

Helps sleep better

Improves physical function and QOL

Improves bone health, peripheral neuropathy

Decreases risk of developing heart disease

Decreases risk of lymphoma progression/recurrence

RCT Of Exercise In Lymphoma: Improved QOL & PFS

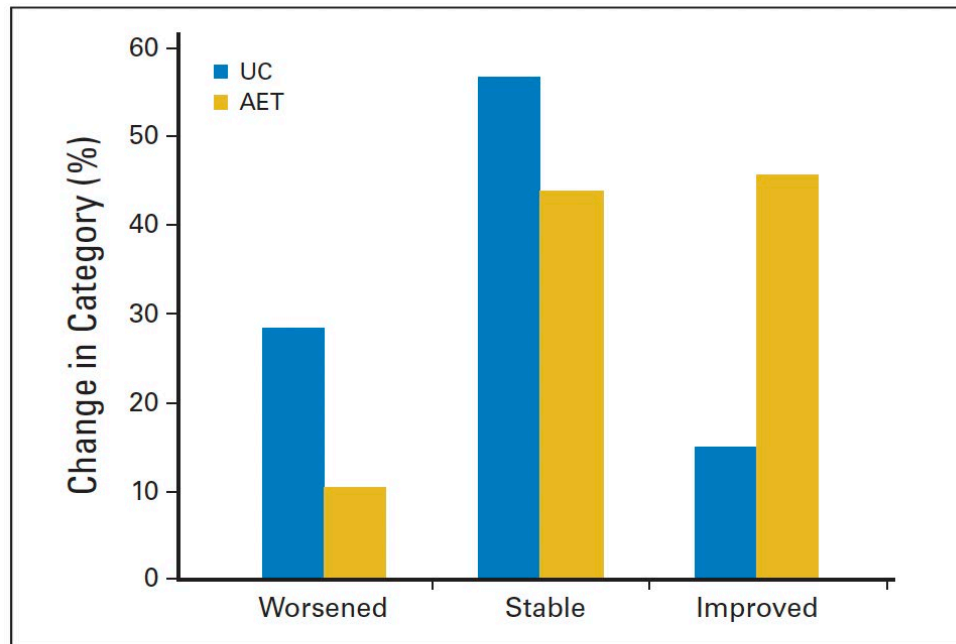
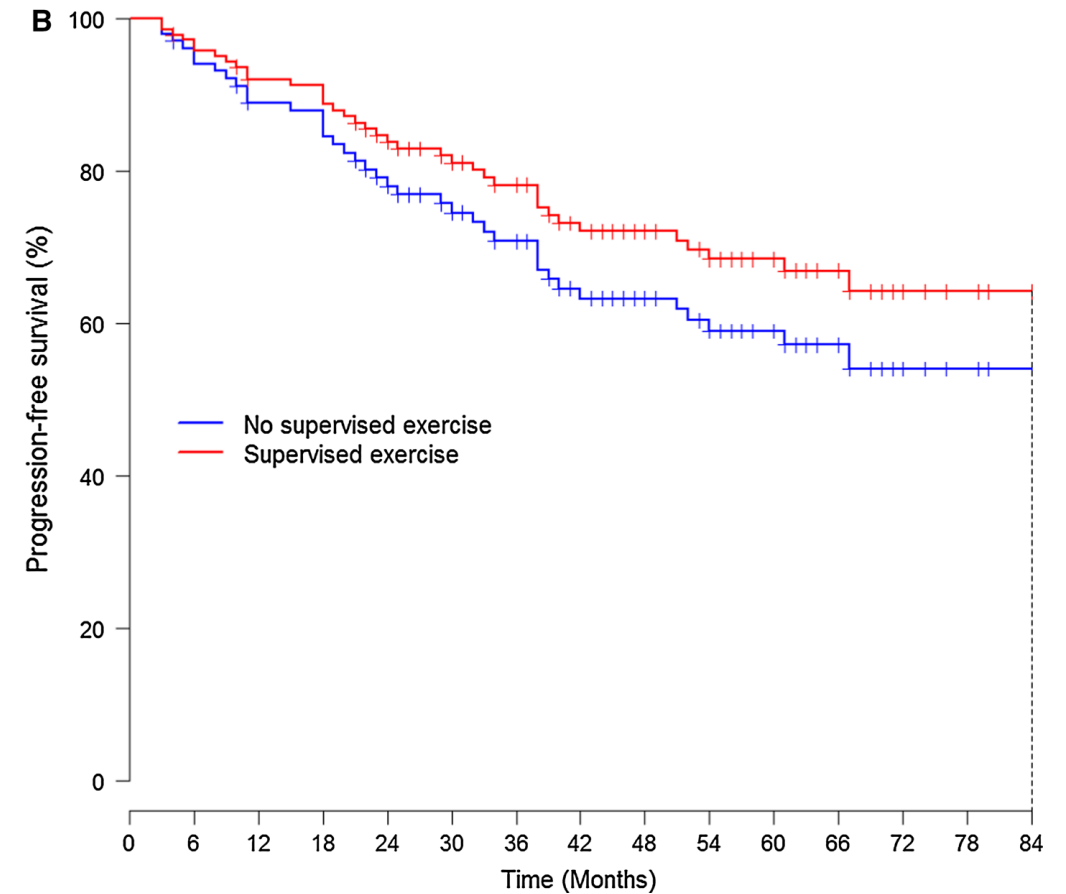
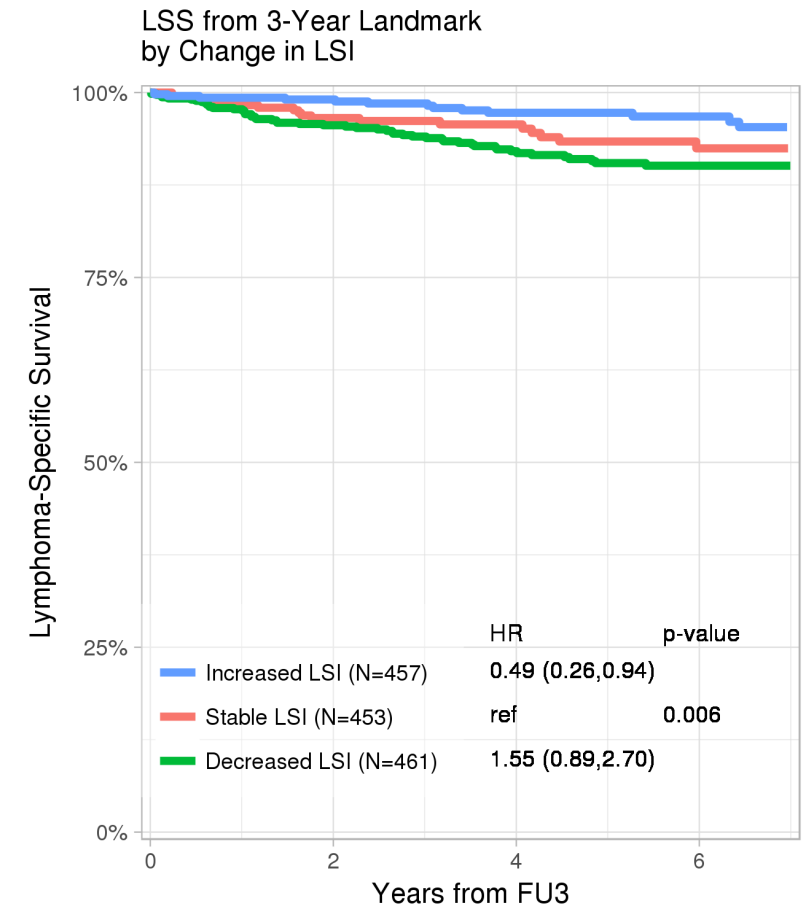
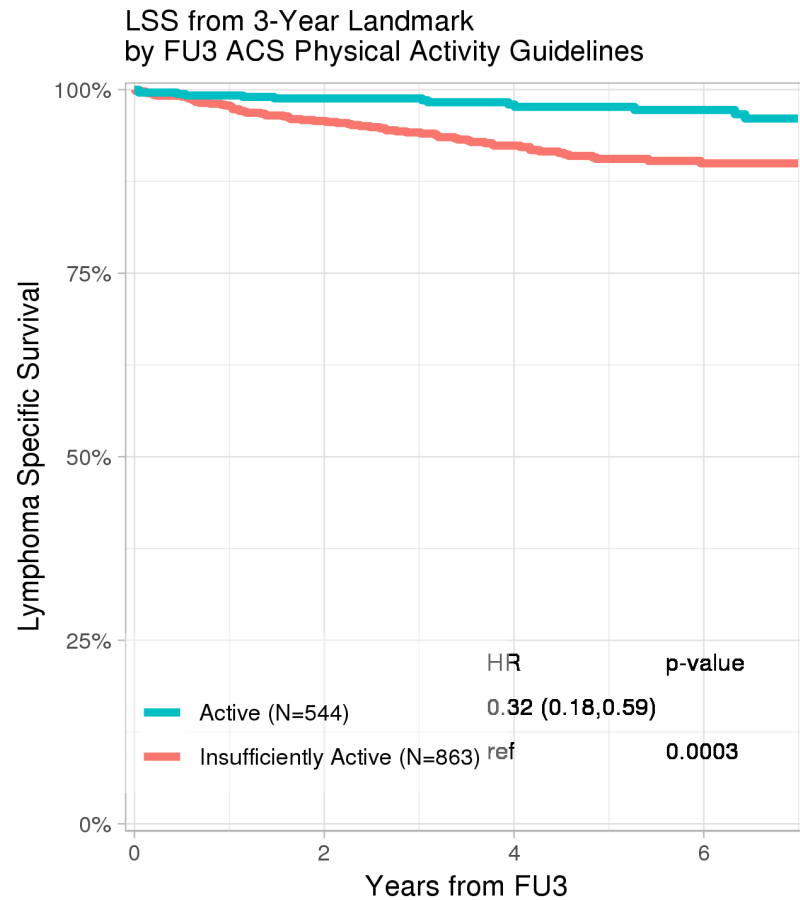


Fig 2. Category change in patient-rated general health by group assignment. UC, usual care; AET, aerobic exercise training.

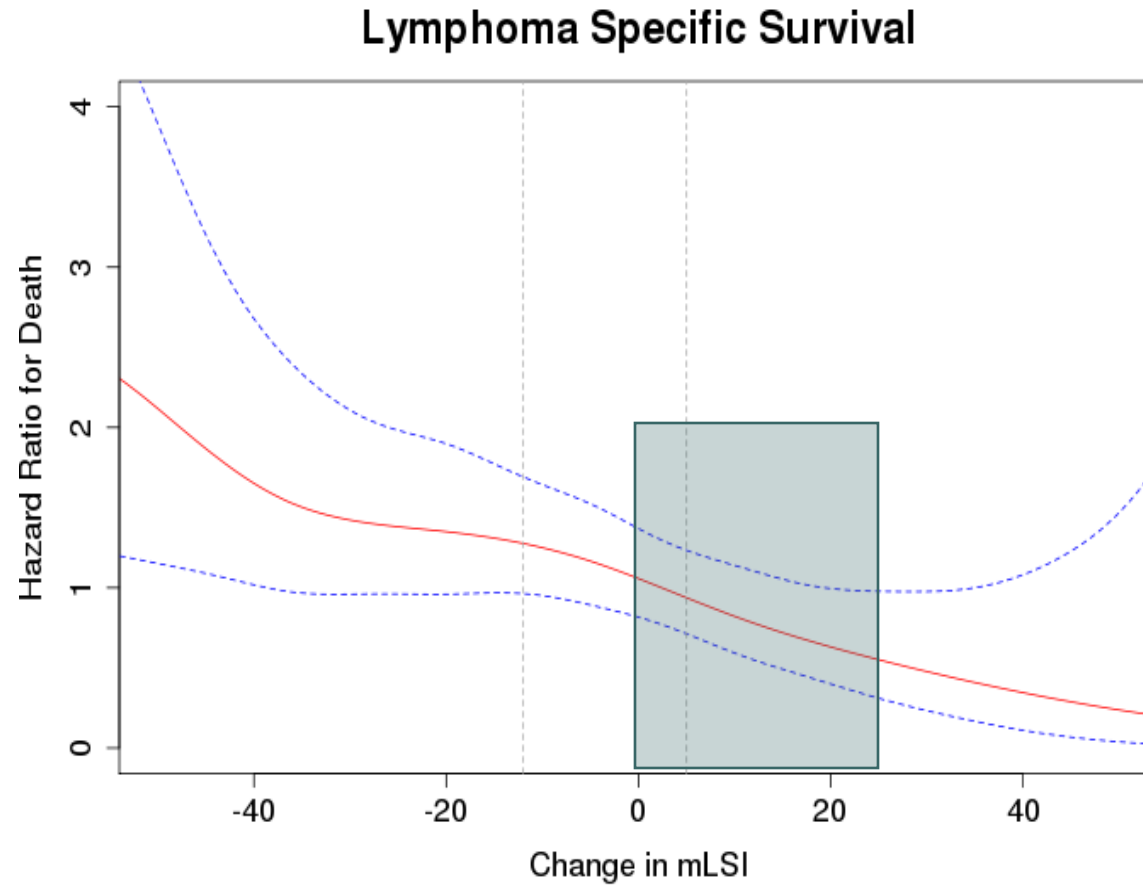


Higher physical activity and increasing physical activity after lymphoma diagnosis is associated with improved survival

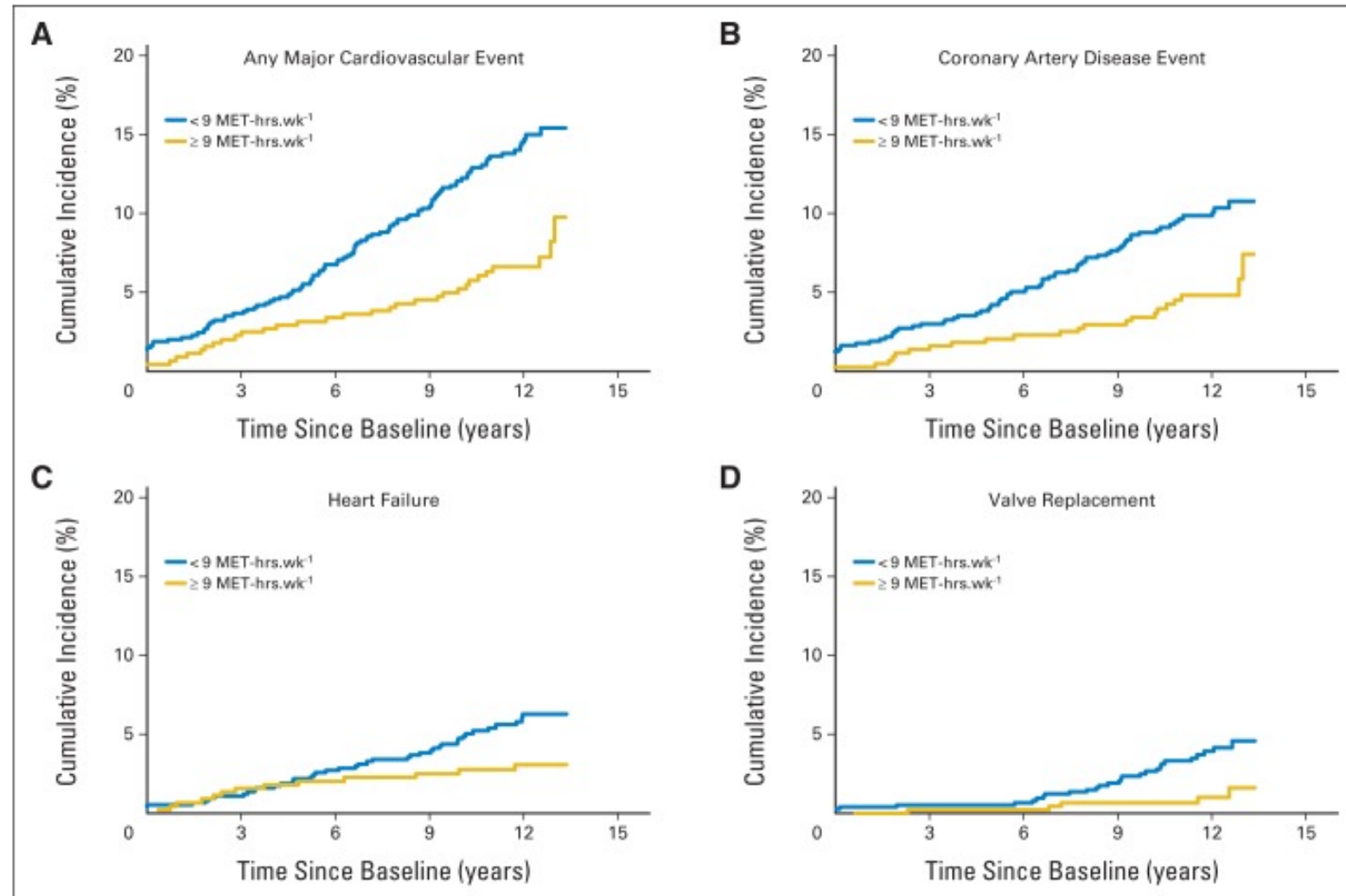


How much should I increase exercise?

Any improvement in physical activity is good!



Risk of CV disease in Hodgkin Lymphoma survivors



Recommended Physical Activity for Cancer survivors:

**Moderate-intensity aerobic activity at least 3 times per week,
for at least 30 min**

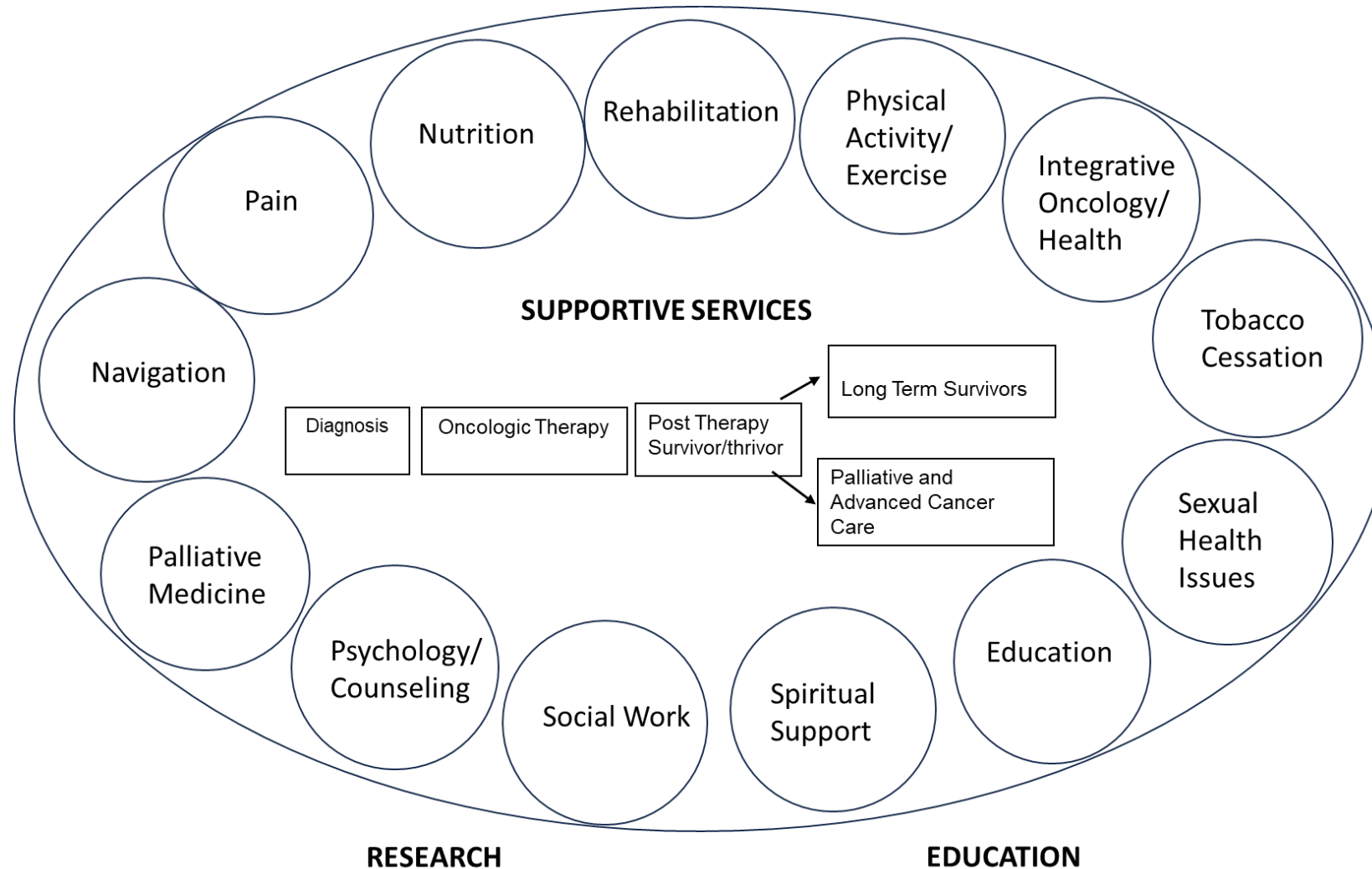
+/-

Resistance training at least 2 times per week, using at least 2
sets of 8 - 15 repetitions

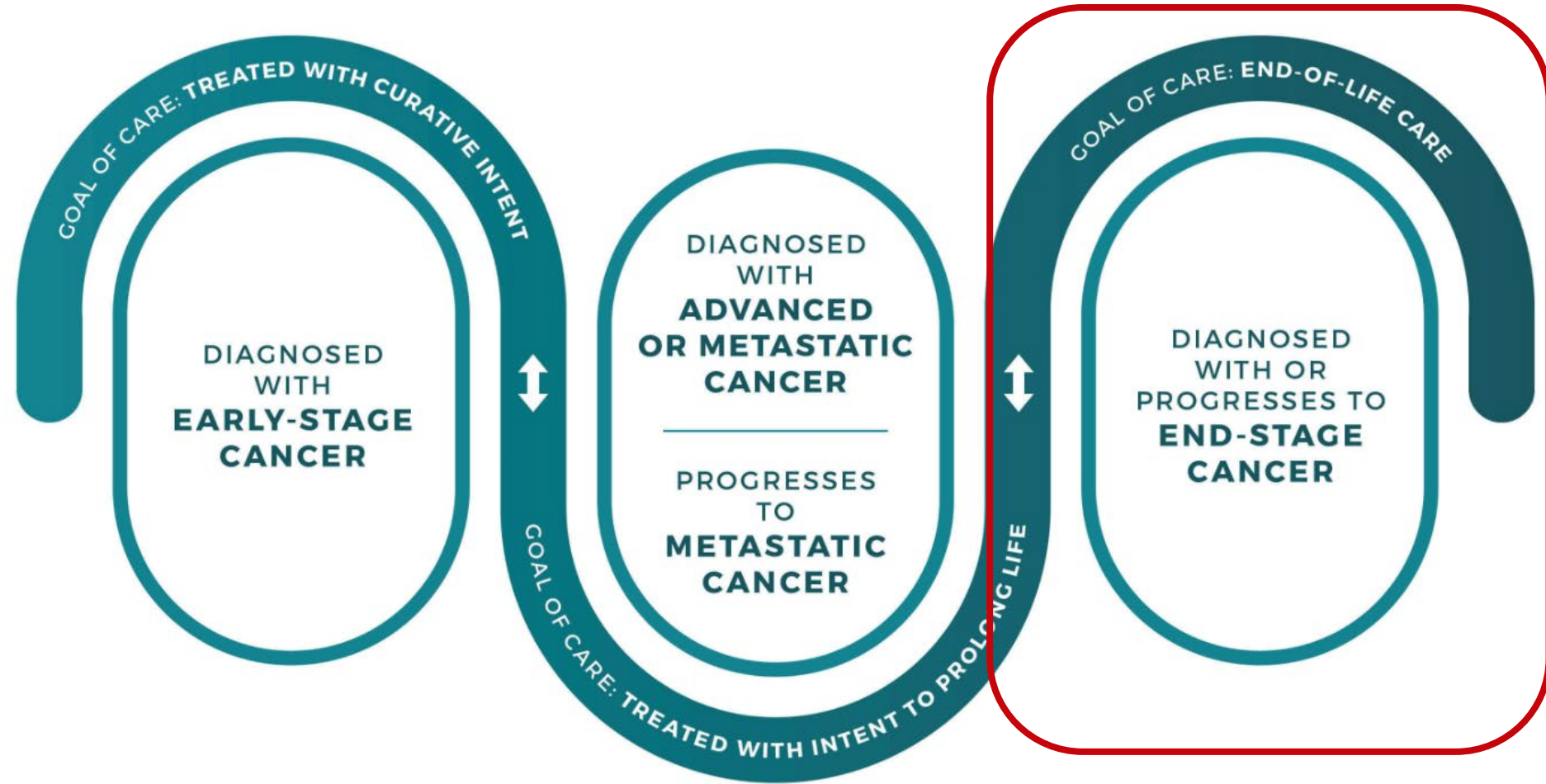
Start where you are. Use what you have. **Do what you can.**

Sit Less.
Move More.

Improving HRQOL For Patients With Lymphoma Needs A Village!

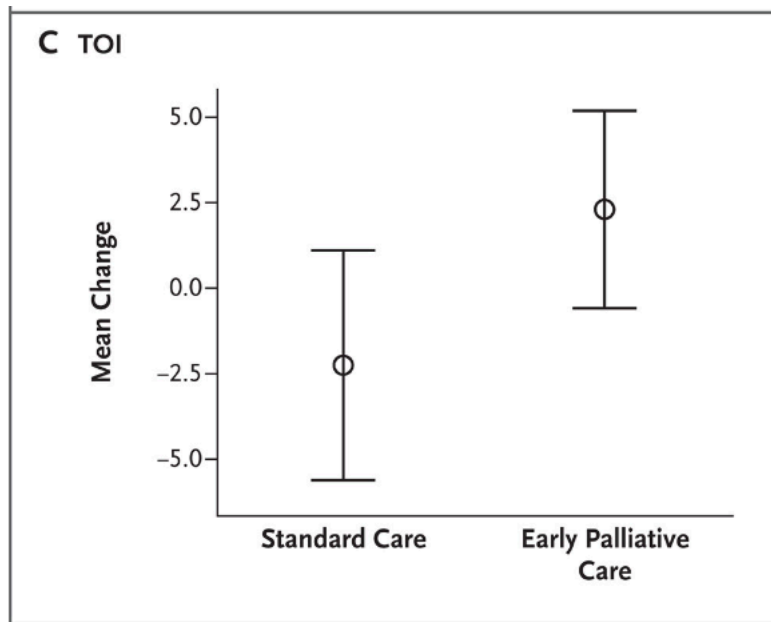


Phases of cancer survivorship

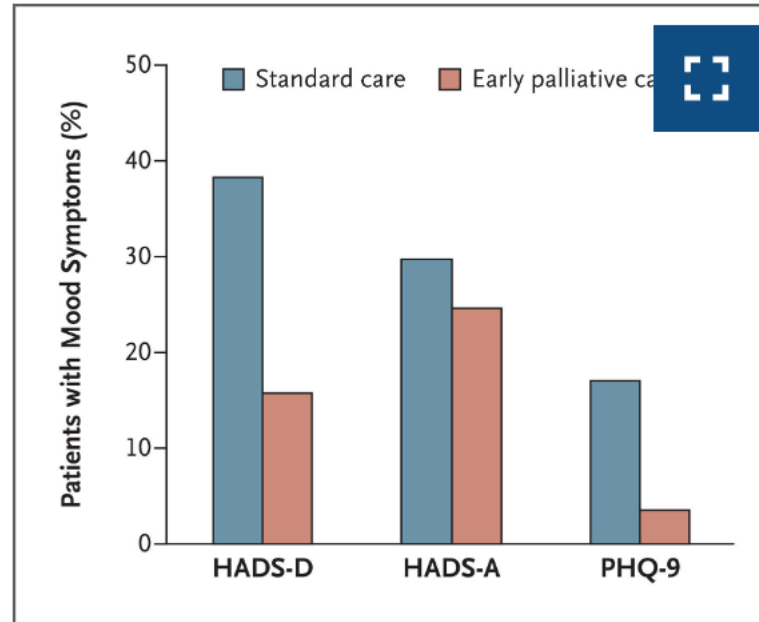


Palliative care

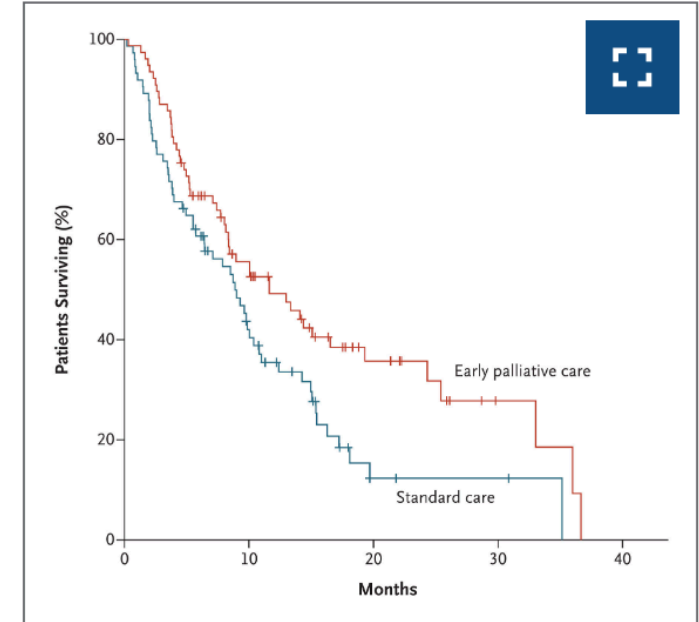
- Studies have shown early palliative care involvement improves QOL and even survival in metastatic solid tumors:



Mean Change in Quality-of-Life Scores from Baseline to 12 Weeks in the Two Study Groups.



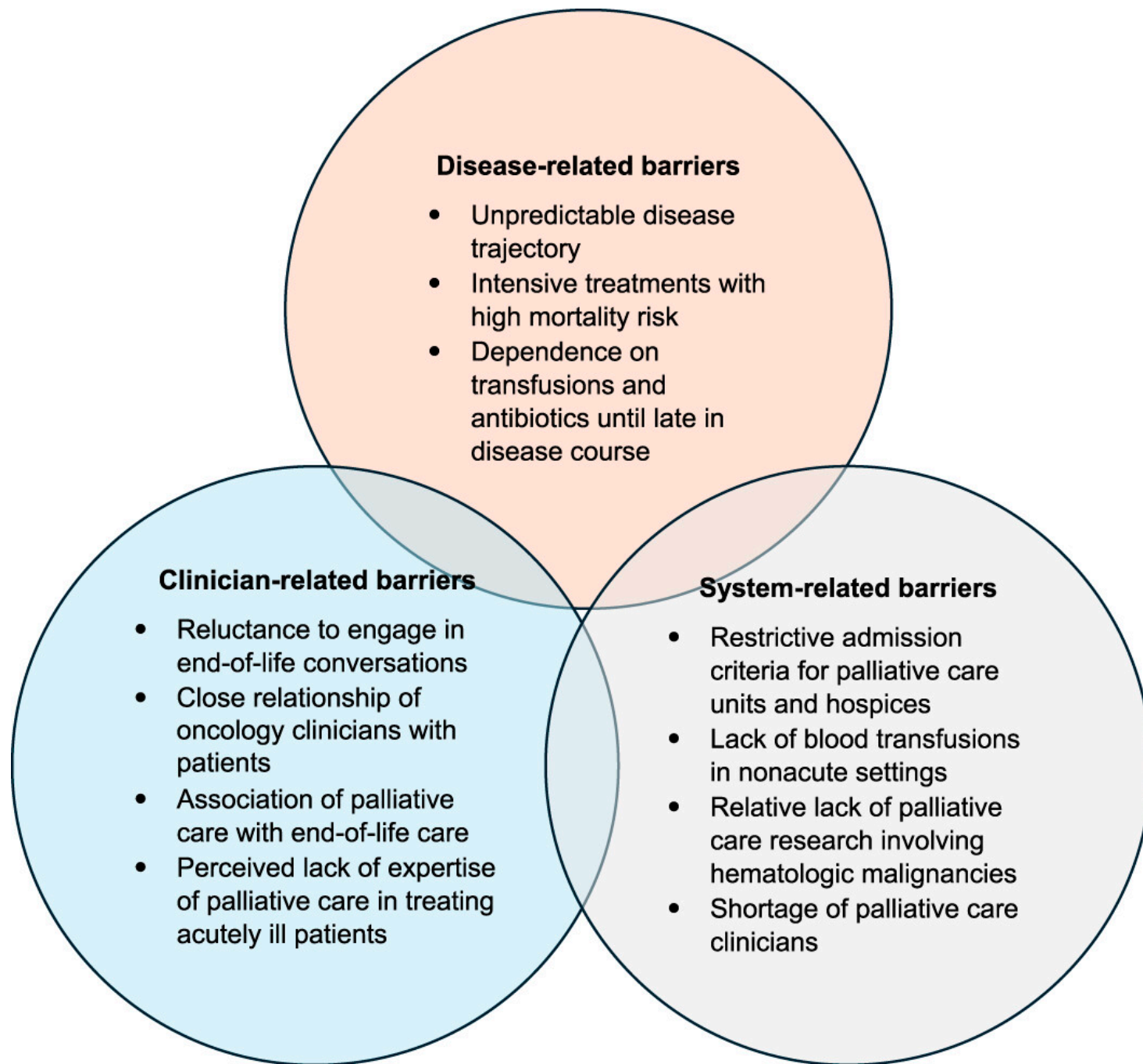
Twelve-Week Outcomes of Assessments of Mood.



Kaplan-Meier Estimates of Survival According to Study Group.

Palliative care needs of Patients with Hem Malignancies

Palliative Care Needs	Illness Phase		
	Treatment	Survivorship	EOL
Physical	Numerous physical symptoms because of the illness and its treatment	Infertility, cognitive dysfunction, late effects of cancer treatment	Numerous physical symptoms because of the illness and its treatment
Psychological	Anxiety, depression, acute stress disorder	Anxiety, depression, post-traumatic stress disorder, fear of recurrence	Anxiety, depression
Social, practical, and ethical	Informational needs regarding decision making and prognosis, advance care planning	Difficulties returning to work, financial burden	High health care resource utilization, aggressive care at EOL, low rates of and late referrals to hospice
Spiritual, religious, existential, and cultural	Spiritual and existential distress; specific religious and cultural needs related to treatment decisions	Spiritual and existential distress	Spiritual, existential, religious, and cultural needs related to EOL care and bereavement



End Of Life Care In Older Adults With Lymphoma

- SEER data 1999-2009 and 2000-2010:
 - 42% hospice enrollment; 34% >3 days before death (2007 national average 43%)
 - 48%MCL > 44% aggressive NHL > 39%indolent NHL
- COTA database 2017-2021 858 pts:
 - median time from last therapy to death 2.6 months
 - 25% received treatment within 30 days of death
 - 32% hospice/palliative referral; time from hospice/PC referral to death 0.7 months
- Single center aggressive NHL 2000-2020:
 - 70% hospitalized, 34% systemic therapy, 23% ICU within 30 days of death
 - Palliative care consult 47%; hospice 40%
 - 52% in hospital death
- Single center DLBCL 2009-2020:
 - 54% hospice utilization; median interval from hospice enrollment to death of 5 days

Integrating Palliative Care In Relapsed Lymphoma

Triggers for goals of care conversations	Triggers for palliative care consultation
Relapsed/refractory disease	High or refractory symptom burden
Declining performance status	Psychological distress/difficulty coping
Organ dysfunction	Misperceptions about illness understanding despite extensive GOC discussions
Planned cellular therapy (SCT or CART)	Complex GOC
	Complicated family dynamics
	Recurrent unplanned admissions
“Surprise question”- you would not be surprised if the patient died in the next year	

Takeaways for Supportive care in lymphoma

While disease-related symptom burden often improves with initiation of lymphoma treatment, treatment-related symptom burden requires active management

Incorporating PROs in clinical care may help improve symptom management

Recommendations of lifestyle modification- increasing physical activity – can have a multitude of positive effects on symptoms and HRQOL, as well as survival

As newer therapies in lymphoma emerge, understanding their impact on HRQOL is crucial

Patients with multiply relapsed lymphoma (3L+) should be engaged in goals of care conversations and palliative care consultations when needed

An aerial photograph of a city waterfront at sunset. The sun is low on the horizon, casting a golden glow over the scene. The water is dark blue with many sailboats scattered across it. The city buildings are visible on the left side, and a large body of water occupies the right side. The overall atmosphere is peaceful and scenic.

Thank you!

pophali@wisc.edu



Local Resources

- www.exerciseismedicine.org/movethruca
- Local gyms
- Local support groups
- Friends & family
- Ask your healthcare team



LIVESTRONG[®] AT THE YMCA

LIVESTRONG[®] at the YMCA is a small-group fitness program for adult cancer survivors.

THIS PROGRAM INCLUDES:

- Free 12-week YMCA Membership for survivor and primary caregiver
- Two 75-minute classes per week
- A combination of individual instruction and group activities

To learn more about LIVESTRONG[®] at the YMCA, contact: livestrong@ymcamn.org
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LIVESTRONG
FOUNDATION