

Disclaimer: *This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care.*

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RPLND = retroperitoneal lymph node dissection

Survivorship – Testicular Cancer: Germ Cell Seminoma Stage I Surveillance

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ELIGIBILITY

CONCURRENT COMPONENTS OF VISITS

SURVEILLANCE

MONITORING FOR LATE EFFECTS

RISK REDUCTION/EARLY DETECTION

PSYCHOSOCIAL FUNCTIONING

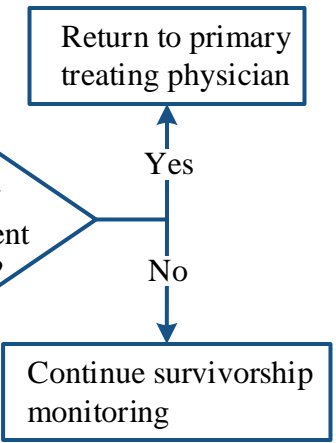
- Physical exam with each visit to include thorough exam of supraclavicular lymph nodes and contralateral testicle
- Years 3-5:
 - AFP, beta HCG and LDH every 6 months
 - Testosterone, glucose, creatinine, and lipid profile annually
 - Chest x-ray every 6 months
 - CT abdomen and pelvis with and without contrast in year 3 and 5
 - Testicular ultrasound¹ annually if high-risk
- After year 10:
 - Testosterone, glucose, creatinine, and lipid profile annually
 - Imaging studies as clinically indicated
- Years 6-10:
 - Comprehensive metabolic panel, CBC with differential, testosterone, and lipid profile annually
 - AFP, beta HCG and LDH as clinically indicated
 - Chest x-ray annually (optional)
 - CT abdomen and pelvis as clinically indicated

- Infertility
- Hypogonadism

- Patient education, counseling, and screening:
- Lifestyle risk assessment²
 - Cancer screening³
 - HPV vaccination as clinically indicated (see [HPV Vaccination algorithm](#))
 - Screening for Hepatitis B and C as clinically indicated (see [Hepatitis Screening and Management – HBV and HCV algorithm](#))
 - Consider cardiovascular risk reduction⁴

- Assess for:
- Distress management (see [Distress Screening and Psychosocial Management algorithm](#))
 - Financial stressors
 - Social support
 - Body image

DISPOSITION



Refer or consult as indicated

Germ cell tumors, seminoma stage I, > 2 years from treatment completion and NED

NED = no evidence of disease

¹ Annual ultrasound of contralateral testicle if one of the following present: diagnosis of seminoma and < 30 years old when diagnosed or testicular maldescent or infertility

² See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

³ Includes [colorectal](#), [liver](#), [lung](#), [pancreatic](#), [prostate](#), and [skin cancer screening](#)

⁴ Consider use of Vanderbilt's [ABCDE's approach to cardiovascular health](#)

Survivorship – Testicular Cancer: Germ Cell Seminoma Stage I Post Adjuvant Chemotherapy or Radiation Therapy

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ELIGIBILITY

CONCURRENT COMPONENTS OF VISIT

SURVEILLANCE

- Physical exam with each visit to include thorough exam of supraclavicular lymph nodes and contralateral testicle
- Years 3-5:
 - AFP, beta HCG, and LDH every 6 months
 - CBC with differential, testosterone, glucose, creatinine, and lipid profile annually
 - Chest x-ray as clinically indicated; consider CT chest with contrast if symptomatic
 - CT abdomen/pelvis with and without contrast annually in years 3 and 5. (CT pelvis if post-radiation therapy; CT abdomen if post-carboplatin)
 - Testicular ultrasound¹ annually if high-risk
- Years 6-10:
 - Comprehensive metabolic panel, CBC with differential, testosterone, and lipid profile annually
 - AFP, beta HCG, and LDH as clinically indicated
 - Other imaging as clinically indicated
- After year 10:
 - CBC with differential, testosterone, glucose, creatinine, and lipid profile annually
 - Imaging as clinically indicated

MONITORING FOR LATE EFFECTS

- Infertility
- Cardiovascular disease²
- Neurotoxicity
- Hypogonadism
- Metabolic syndrome
- Renal insufficiency

RISK REDUCTION/EARLY DETECTION

- Patient education, counseling, and screening:
- Lifestyle risk assessment³
 - Cancer screening⁴
 - HPV vaccination as clinically indicated (see [HPV Vaccination algorithm](#))
 - Screening for Hepatitis B and C as clinically indicated (see [Hepatitis Screening and Management – HBV and HCV algorithm](#))

PSYCHOSOCIAL FUNCTIONING

- Assess for:
- Distress management (see [Distress Screening and Psychosocial Management algorithm](#))
 - Financial stressors
 - Body image
 - Social support

DISPOSITION

Return to primary treating physician

New primary or recurrent disease?

Yes
No

Continue survivorship monitoring

Refer or consult as indicated

Germ cell tumors, seminoma stage I, > 2 years post-adjuvant radiotherapy or single-agent carboplatin and NED

NED = no evidence of disease

¹ Annual ultrasound of contralateral testicle if one of the following is present: diagnosis of seminoma and < 30 years old when diagnosed or testicular maldescent, or infertility

² Consider use of Vanderbilt's [ABCDE's approach to cardiovascular health](#)

³ See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

⁴ Includes [colorectal](#), [liver](#), [lung](#), [pancreatic](#), [prostate](#), and [skin cancer screening](#)

Survivorship – Testicular Cancer: Germ Cell Non-Seminoma Stage I Surveillance

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ELIGIBILITY

CONCURRENT COMPONENTS OF VISITS

SURVEILLANCE

- Physical exam with each visit to include thorough exam of supraclavicular lymph nodes and contralateral testicle
- Years 3-5:
 - AFP, beta HCG, and LDH every 6 months
 - Testosterone, comprehensive metabolic panel (CMP), and lipid profile annually
 - Chest x-ray every 6 months
 - Testicular ultrasound¹ annually if high-risk
 - CT abdomen/pelvis with and without contrast in year 3 and 5
- Years 6-10:
 - CMP, CBC with differential, testosterone and lipid profile annually
 - AFP, beta HCG and LDH as clinically indicated
- After year 10:
 - Testosterone, glucose, creatinine, and lipid profile annually
 - Imaging studies as clinically indicated

MONITORING FOR LATE EFFECTS

- Infertility
- Hypogonadism

RISK REDUCTION/EARLY DETECTION

- Patient education, counseling, and screening:
- Lifestyle risk assessment²
 - Cancer screening³
 - HPV vaccination as clinically indicated (see [HPV Vaccination algorithm](#))
 - Screening for Hepatitis B and C as clinically indicated (see [Hepatitis Screening and Management – HBV and HCV algorithm](#))
 - Consider cardiovascular risk reduction⁴

PSYCHOSOCIAL FUNCTIONING

- Assess for:
- Distress management (see [Distress Screening and Psychosocial Management algorithm](#))
 - Financial stressors
 - Social support
 - Body image

DISPOSITION

New primary or recurrent disease?

Return to primary treating physician

Yes

No

Continue survivorship monitoring

Refer or consult as indicated

Germ cell tumors, non-seminoma stage I, > 2 years from completion of treatment and NED

NED = no evidence of disease

¹ Annual ultrasound of contralateral testicle if one of the following present: diagnosis of seminoma and < 30 years old when diagnosed or testicular maldescent or infertility

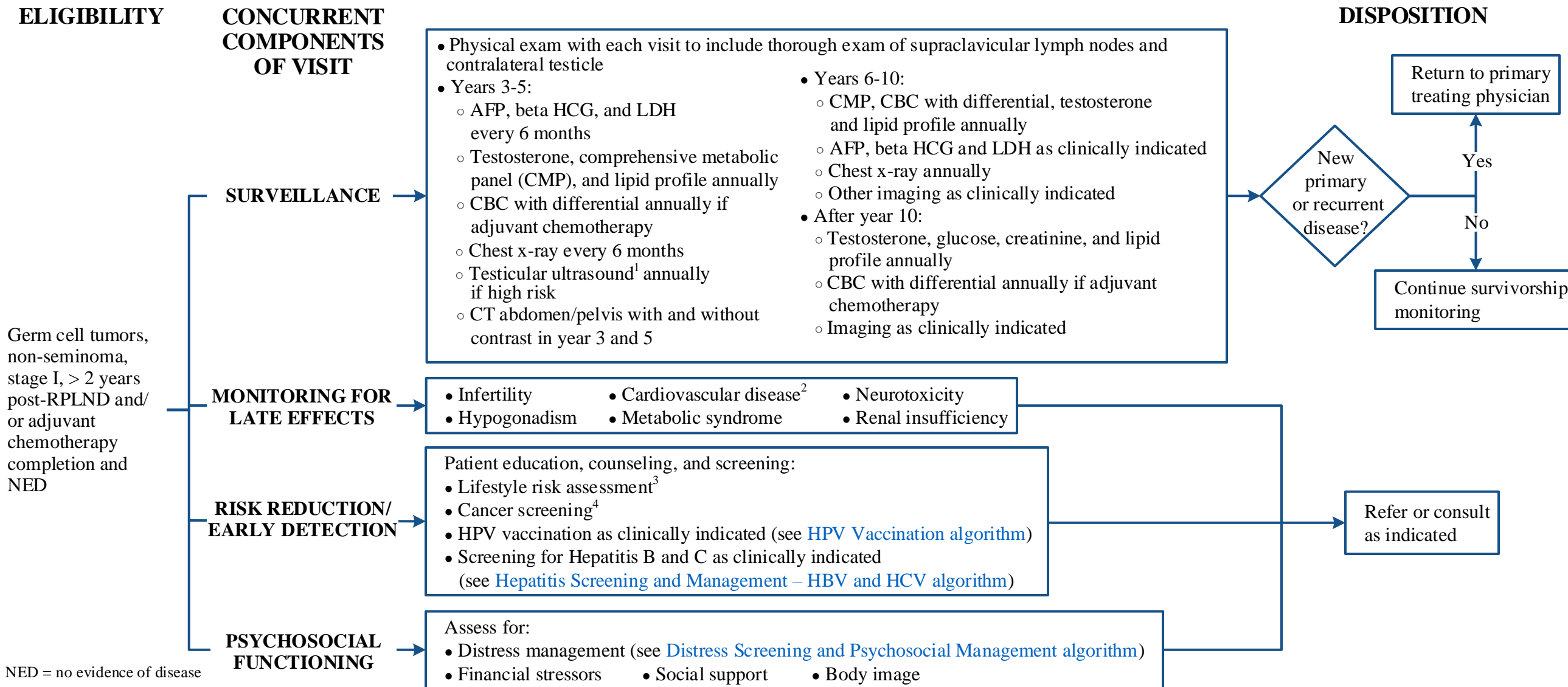
² See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

³ Includes [colorectal](#), [liver](#), [lung](#), [pancreatic](#), [prostate](#), and [skin cancer screening](#)

⁴ Consider use of Vanderbilt's [ABCDE's approach to cardiovascular health](#)

Survivorship – Testicular Cancer: Germ Cell Non-Seminoma Stage I Post-RPLND and/or Adjuvant Chemotherapy

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NED = no evidence of disease

¹ Annual ultrasound of contralateral testicle if one of the following is present: diagnosis of seminoma and less than 30 years old when diagnosed or testicular maldescent, or infertility

² Consider use of Vanderbilt's [ABCDE's approach to cardiovascular health](#)

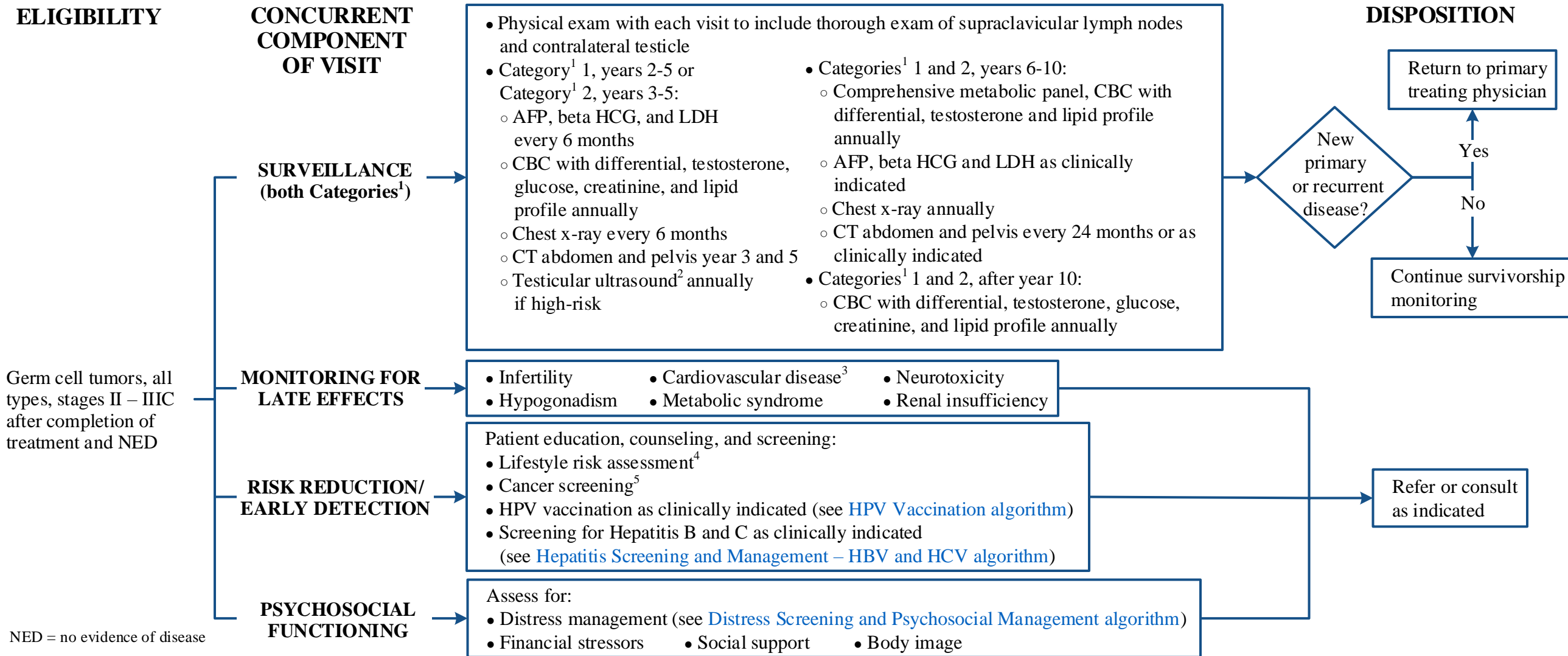
³ See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

⁴ Includes [colorectal](#), [liver](#), [lung](#), [pancreatic](#), [prostate](#), and [skin cancer screening](#)

Survivorship – Testicular Cancer: Germ Cell

All types, Stages II-III C

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¹ Category 1: germ cell tumors all types, stages II – IIIA; no evidence of disease at 2 years

Category 2: germ cell tumors all types, stages IIIB and IIIC; no evidence of disease at 3 years

² Annual ultrasound of contralateral testicle if one of the following is present: diagnosis of seminoma and < 30 years old when diagnosed or testicular maldescent, or infertility

³ Consider use of Vanderbilt's [ABCDE's approach to cardiovascular health](#)

⁴ See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

⁵ Includes [colorectal](#), [liver](#), [lung](#), [pancreatic](#), [prostate](#), and [skin cancer screening](#)

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DEVELOPMENT CREDITS

This survivorship algorithm is based on majority expert opinion of the Genitourinary Survivorship work group at The University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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