

Toxicity Assessment Categories for General

- General - Radiation
 - Anorexia – Grade 0-5
 - Anxiety – Grade 0-4
 - Dehydration – Grad 0-5
 - Depression – Grade 0-5
 - Dermatitis Radiation – Grad 0-5
 - Diarrhea – Grade 0-5
 - Fatigue – Grade 0-3
 - ~~○ Fibrosis Deep Connective Tissue – Grade 0-5~~
 - ~~○ Fracture – Grade 0-5~~
 - Nausea – Grad 0-3
 - Pain – Grade 0-3
 - ~~○ Treatment Related Secondary Malignancy – Grade 0, 3-5~~
 - ~~○ Tumor Pain – Grade 0-3~~
 - Vomiting – Grade 0-5
- General – Skin
 - Alopecia – Grade 0-2
 - Alopecia - partial or complete loss of hair from areas where it is normally present.
 - Erythroderma – Grade 0-5
 - Erythroderma - severe and generalized skin condition characterized by widespread erythema (redness) and scaling of the skin
 - ~~○ Pain of Skin – Grade 0-3~~
 - PruritisPruritus – Grade 0-3
 - ~~○ Rash Aeneiform – Grade 0-5~~
 - Skin Hyperpigmentation – Grade 0-2
 - ~~○ Skin Hypopigmentation – Grade 0-2~~
 - Skin Induration – Grade 0-2
 - Skin Ulceration – Grade 0-5
 - Telangiectasia – Grade 0-2
 - Telangiectasia - small, widened blood vessels on the skin or mucous membranes. These dilated blood vessels can cause thread-like red lines or patterns on the skin, often known as "spider veins." They might appear pink or red in color and can form on any part of the body, but they are most commonly seen in subacute or long-term stage after radiotherapy

Commented [PM1]: Alopecia - partial or complete loss of hair from areas where it is normally present. Erythroderma - severe and generalized skin condition characterized by widespread erythema (redness) and scaling of the skin

Commented [PM2]: Telangiectasia - small, widened blood vessels on the skin or mucous membranes. These dilated blood vessels can cause thread-like red lines or patterns on the skin, often known as "spider veins." They might appear pink or red in color and can form on any part of the body, but they are most commonly seen in subacute or long-term stage after radiotherapy

Toxicity Assessment Categories for Brain

- Ear and Labyrinth – Brain
 - Hearing Impaired – Grade 0-4
 - Middle Ear Inflammation – Grade 0-5
 - Tinnitus – Grade 0-3
- Endocrine – Brain
 - ~~Endocrine Disorders – Other, Specify – Grade 0-5~~
- Eye – Brain
 - Blurred Vision – Grade 0-4
 - Dry Eye – Grade 0-3
 - Eye Pain – Grade 0-3
 - Optic Nerve Disorder – Grade 0-4
 - Damage or dysfunction of the nerve that transmits visual signals from the eye to the brain. Actual symptoms patients present with – vision loss, blurry vision, visual field defect, flashing lights, floaters (new, unilateral), reduced brightness sensitivity, relative afferent pupillary defect (RAPD)
 - ~~Retinopathy – Grade 0-4~~
 - Eye Disorders – Other, Specify – Grade 0-4
- Nervous System – Brain
 - ~~Central Nervous System Necrosis – Grade 0-5~~
 - Cognitive Disturbance – Grade 0-3
 - Other than memory impairment: lethargy, drowsy, slow to wake, mood changes, difficulty concentrating
 - ~~Edema Cerebral – Grade 0, 3-5~~
 - Headache – Grade 0-3
 - ~~Ischemia Cerebrovascular – Grade 0-2~~
 - Memory Impairment – Grade 0-3
 - Seizure – Grade 0-5
- Increased intracranial pressure
 - Headache
 - Vomiting
 - Blurred or double vision
 - Weakness or numbness in extremities
 - Difficulty coordinating movements
 - Balance issues
 - Seizures
 - Irritability or drowsiness
 - Slurred speech
 - Papilledema

Commented [PM3]: I think they mean issues such as panhypopituitarism. However, this would not be seen during RT, is likely noted later and one cannot tell by just "looking." MD likely has to organize BW to check for hypothyroidism, low T, low ACTH (cortisol replacement), low FSH/LH.

Commented [PM4]: Damage or dysfunction of the nerve that transmits visual signals from the eye to the brain. Actual symptoms patients present with – vision loss, blurry vision, visual field defect, flashing lights, floaters (new, unilateral), reduced brightness sensitivity, relative afferent pupillary defect (RAPD)

Commented [PM5]: Can't grade this. People don't present with "CNS necrosis." They likely present with headaches, nausea, seizures and MR reveals necrosis as the underlying cause.

Commented [PM6]: Define, other than memory impairment: lethargy, drowsy, slow to wake, mood changes, difficulty concentrating

Commented [PM7]: Same comment as necrosis

Toxicity Assessment Categories for Head and Neck

- Blood and Lymphatic System – Head and Neck
 - Febrile Neutropenia – Grade 0, 3-5
- Ear and Labyrinth – Head and Neck
 - Ear Pain – Grade 0-3
 - External Ear Pain – Grade 0-3
 - Hearing Impaired – Grade 0-4
 - Tinnitus – Grade 0-3
- Eye – Head and Neck
 - Blurred Vision – Grade 0-4
 - Dry Eye – Grade 0-3
 - Eye Pain – Grade 0-3
 - ~~Retinopathy – Grade 0-4~~
 - Watery Eyes – Grade 0-4
- Gastrointestinal – Head and Neck
 - Dry Mouth – Grade 0-3
 - Dysphagia – Grade 0-5
 - Esophagitis – Grade 0-5
 - Mucositis Oral – Grade 0-5
 - Oral Pain – Grade 0-3
 - Salivary Duct Inflammation – Grade 0-5
 - Salivary duct inflammation - also known as sialadenitis, is the inflammation of a salivary gland, often due to infection or obstruction. Symptoms - pain, swelling, redness in the gland area, fever, and pus drainage from the duct.
- General Disorders and Administration Site Conditions – Head and Neck
 - Edema Face – Grade 0-3
 - Malaise – Grade 0-3
 - Neck Edema – Grade 0-4
- Infections and Infestations – Head and Neck
 - ~~Corneal Infection – Grade 0-5~~
 - Mucosal Infection – Grade 0-5
 - ~~Otitis Media – Grade 0, 2-5~~
 - ~~Sepsis – Grade 0, 3-5~~
 - ~~Sinusitis – Grade 0, 2-5~~
 - Skin Infection – Grade 0-5
 - Soft Tissue Infection – Grade 0, 2-5
- Musculoskeletal and Connective Tissue – Head and Neck
 - Head Soft Tissue Necrosis – Grade 0, 2-5
 - H&N soft tissue necrosis - breakdown of soft tissues in the head region, often resulting from factors like reduced blood supply, radiation injury, or severe infection. Symptoms: pain or discomfort, skin discoloration, swelling or inflammation, foul-smelling discharge from the necrotic tissue, tissue breakdown with exposed underlying structures, ulceration or open sores, loss of sensation.
 - Neck Soft Tissue Necrosis – Grade 0, 2-5
 - Osteonecrosis of Jaw – Grade 0-5
 - Superficial Soft Tissue Fibrosis – Grade 0-5
 - Trismus – Grade 0-3
- Nervous System – Head and Neck
 - ~~Central Nervous System Necrosis – Grade 0-5~~
 - Dysarthria – Grade 0-3

Commented [PM8]: Salivary duct inflammation - also known as sialadenitis, is the inflammation of a salivary gland, often due to infection or obstruction. Symptoms - pain, swelling, redness in the gland area, fever, and pus drainage from the duct.

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- Dysesthesia – Grade 0-3
- Dysgeusia – Grade 0-2
- ~~Edema Cerebral – Grade 0, 3-5~~
- Facial Nerve Disorder – Grade 0-3
 - Drooping of the mouth or eye on one side. Difficulty raising eyebrows. Difficulty closing the eye, which may become dry or irritated. Difficulty smiling, frowning, or making facial expressions. Decreased tearing or Hyperlacrimation (excessive tearing). Loss of taste. Hypersensitivity to sound (Hyperacusis). Increased or decreased salivation. Numbness. Synkinesis.
- Hypoglossal Nerve Disorder – Grade 0-3
 - Difficulty moving tongue, tongue deviation, fasciculations (involuntary twitching of tongue)
- Oculomotor Nerve Disorder – Grade 0-3
 - Ptosis. Difficulty moving the eye upward, downward, or inward (medially). Dilated Pupil (Mydriasis). Diplopia. Strabismus.
- Paresthesia – Grade 0-3
- ~~Stroke – Grade 0-5~~
- ~~Transient Ischemic Attacks – Grade 0-2~~
- Trigeminal Nerve Disorder – Grade 0-3
 - Cranial Nerve V exam; sudden, severe, electric shock-like or stabbing pain typically on one side of the jaw or cheek, constant burning sensation or aching, triggered pain (Activities like chewing, speaking, brushing teeth, touching the face, or even exposure to wind can trigger episodes of pain), weakness or spasms in muscles of mastication (chewing)
- Respiratory, Thoracic and Mediastinal – Head and Neck
 - Aspiration – Grade 0-5
 - Hoarseness – Grade 0-3
 - ~~Laryngeal Edema – Grade 0-5~~
 - Pneumonitis – Grade 0-5
 - Stridor – Grade 0, 3-5
 - Tracheal Mucositis – Grade 0-5
 - Voice Alteration – Grade 0-3
- Vascular
 - Lymphedema – Grade 0-3
 - ~~Thromboembolic Event – Grade 0-5~~
 - ~~Hot Flashes – Grade 0-3~~

Commented [PM10]: I'll be honest – these are SUPER rare (I have seen one or twice in my decade of treating H&N). Symptoms cheat sheet for nurses if needed: Drooping of the mouth or eye on one side. Difficulty raising eyebrows. Difficulty closing the eye, which may become dry or irritated. Difficulty smiling, frowning, or making facial expressions. Decreased tearing or Hyperlacrimation (excessive tearing). Loss of taste. Hypersensitivity to sound (Hyperacusis). Increased or decreased salivation. Numbness. Synkinesis.

Commented [PM11]: Difficulty moving tongue, tongue deviation, fasciculations (involuntary twitching of tongue)

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Toxicity Assessment Categories for Breast

- ~~Gastrointestinal – Breast~~
 - ~~Abdominal Pain – Grade 0-3~~
 - ~~Dry Mouth – Grade 0-3~~
 - ~~Dysphagia – Grade 0-5~~
 - ~~Esophagitis – Grade 0-5~~
 - ~~Gastric Hemorrhage – Grade 0-5~~
 - ~~Mucositis Oral – Grade 0-5~~
- General Disorders and Administration Site Conditions – Breast
 - Edema Limbs – Grade 0-3
 - ~~Non-Cardiac Chest Pain – Grade 0-3~~
 - Chest pain is chest pain which will obviously require further assessment and workup/referral to ED
- Infections and Infestations – Breast
 - Breast Infection – Grade 0-5
- Injury, Poisoning and Procedural Complications – Breast
 - Seroma – Grade 0-3
 - Musculoskeletal and Connective Tissue – Breast
 - Joint Range of Motion Decreased – Grade 0-3
 - ~~Joint Range of Motion Decreased Lumbar Spine – Grade 0-3~~
- Nervous System – Breast
 - ~~Brachial Plexopathy – Grade 0-3~~
 - Brachial plexopathy: radiation injury to the brachial plexus, a complex network of nerves that originates from the cervical and upper thoracic spine and provides sensory and motor function to the shoulder, arm, forearm, and hand. Damage or dysfunction of this nerve network can result in pain, weakness, numbness, or other neurological deficits
- Reproductive and Breast – Breast
 - Breast Atrophy – Grade 0-3
 - Breast Pain – Grade 0-3
 - Nipple Deformity – Grade 0-2
- Respiratory, Thoracic, and Mediastinal – Breast
 - ~~Pneumonitis – Grade 0-5~~
 - RT side effect, particularly when RT is given for cancers located within or near the lungs, such as lung cancer, breast cancer, or lymphomas. The condition usually emerges several weeks to months (subacute to long-term time frame) after the completion of radiation therapy. Symptoms: dyspnea, cough, chest pain/tightness, fatigue, crackles. Requires imaging to confirm diagnosis
- Vascular
 - Lymphedema – Grade 0-3
 - ~~Thromboembolic Event – Grade 0-5~~
 - Hot Flashes – Grade 0-3

Commented [PM14]: Chest pain is chest pain. How would the nurses know it's non-cardiac unless workup complete? Perhaps best to remove or just have "Chest Pain", which will obviously require further assessment and workup/referral to ED

Commented [PM15]: Brachial plexopathy: radiation injury to the brachial plexus, a complex network of nerves that originates from the cervical and upper thoracic spine and provides sensory and motor function to the shoulder, arm, forearm, and hand. Damage or dysfunction of this nerve network can result in pain, weakness, numbness, or other neurological deficits

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Toxicity Assessment Categories for Thoracic

- Cardiac – Thoracic
 - ~~Myocardial Infarction – Grade 0-5~~
 - ~~Pericardial Effusion – Grade 0, 2-5~~
 - ~~Pericarditis – Grade 0-5~~
 - Chest Pain, Grade 0-5
- Gastrointestinal – Thoracic
 - Constipation – Grade 0-5
 - Dyspepsia – Grade 0-3
 - Dysphagia – Grade 0-5
 - Esophageal Ulcer – Grade 0-5
 - Esophagitis – Grade 0-5
 - Mucositis Oral – Grade 0-5
 - Upper Gastrointestinal Hemorrhage – Grade 0-5
 - **Nurses may document hemoptysis (blood with cough) or hematemesis (blood with vomit)**
- Nervous System – Thoracic
 - Brachial Plexopathy – Grade 0-3
 - Peripheral Sensory Neuropathy – Grade 0-4
- Respiratory, Thoracic and Mediastinal – Thoracic
 - Aspiration – Grade 0-5
 - Bronchial Obstruction – Grade 0-5
 - Cough – Grade 0-3
 - Dyspnea – Grade 0-5
 - Epistaxis – Grade 0-5
 - Hiccups – Grade 0-3
 - Hoarseness – Grade 0-3
 - Hypoxia – Grade 0, 2-5
 - Laryngeal Edema – Grade 0-5
 - Pneumonitis – Grade 0-5
 - Hemoptysis – Grade 0-5
 - ~~Pulmonary Fibrosis – Grade 0-5~~
- Vascular
 - Lymphedema – Grade 0-3
 - ~~Thromboembolic Event – Grade 0-5~~
 - ~~Hot Flashes – Grade 0-3~~

Commented [PM17]: Nurses may document hemoptysis (blood with cough) or hematemesis (blood with vomit)

Toxicity Assessment Categories for Abdomen

- Gastrointestinal – Abdomen
 - Abdominal Pain – Grade 0-3
 - Bloating – Grade 0-2
 - Constipation – Grade 0-5
 - Duodenal Hemorrhage – Grade 0-5
 - Duodenal Perforation – Grade 0, 2-5
 - Duodenal Ulcer – Grad 0-5
 - Dyspepsia – Grade 0-3
 - Dysphagia – Grade 0-5
 - Enterovesical Fistula – Grade 0-5
 - abnormal connection (fistula) between the intestine and the bladder. This condition can lead to urinary symptoms due to the passage of intestinal content into the bladder. Symptoms: passage of gas or fecal matter in urine. Recurrent UTIs. Frequency and urgency of urination. Dysuria. Flank pain. Foul-smelling urine.
 - Esophagitis – Grade 0-5
 - Fecal Incontinence – Grade 0-3
 - Gastric Hemorrhage – Grade 0-5
 - Gastric Perforation – Grade 0-5
 - Gastric Ulcer – Grade 0-5
 - Gastrointestinal Fistula – Grade 0-5
 - Lower Gastrointestinal Hemorrhage – Grade 0-5
 - Mucositis Oral – Grade 0-5
 - Proctitis – Grade 0-5
 - Rectal Hemorrhage – Grade 0-5
 - Rectal Pain – Grade 0-3
 - Rectal Ulcer – Grade 0-5
 - Small Intestinal Obstruction - Grade 0-5
 - Abd pain or cramping, abd distension, nausea, vomiting, inability to pass gas or stool, loud stomach or bowel sounds that are heard without stethoscope, malaise.
 - Small Intestinal Perforation – Grade 0-5
 - Upper Gastrointestinal Hemorrhage – Grade 0-5
- Hepatobiliary – Abdomen
 - ~~Bile Duct Stenosis – Grade 0-5~~
 - ~~Biliary Fistula – Grade 0, 2-5~~
 - ~~Hepatic Failure – Grade 0, 3-5~~
 - Hepatobiliary Disorders, Other, Specify – Grade 0-5
 - Hepatobiliary symptoms: jaundice (yellowing of the skin and eyes), dark urine, pale stools, itchy skin, abdominal pain (usually in the upper right side), unexplained weight loss, fever, bile leakage which may manifest as greenish-yellow fluid in a drain or leaking from a wound, abdominal pain, nausea and vomiting, swelling in the legs and abdomen (due to fluid accumulation), mental confusion or altered level of consciousness, fatigue or weakness, loss of appetite, diarrhea, bleeding easily, bruising easily, ascites (fluid accumulation in the abdomen)
- Nervous System – Abdomen
 - Peripheral Motor Neuropathy – Grade 0-5
 - Peripheral Sensory Neuropathy – Grade 0-4
- Renal and Urinary – Abdomen
 - Cystitis Noninfective – Grade 0-5

Commented [PM18]: Cheat sheet for nurses: abnormal connection (fistula) between the intestine and the bladder. This condition can lead to urinary symptoms due to the passage of intestinal content into the bladder. Symptoms: passage of gas or fecal matter in urine. Recurrent UTIs. Frequency and urgency of urination. Dysuria. Flank pain. Foul-smelling urine.

Commented [PM19]: Abdo pain or cramping, abdo distension, nausea, vomiting, inability to pass gas or stool, loud stomach or bowel sounds that are heard without stethoscope, malaise.

Commented [PM20]: Hepatobiliary symptoms: jaundice (yellowing of the skin and eyes), dark urine, pale stools, itchy skin, abdominal pain (usually in the upper right side), unexplained weight loss, fever, bile leakage which may manifest as greenish-yellow fluid in a drain or leaking from a wound, abdominal pain, nausea and vomiting, swelling in the legs and abdomen (due to fluid accumulation), mental confusion or altered level of consciousness, fatigue or weakness, loss of appetite, diarrhea, bleeding easily, bruising easily, ascites (fluid accumulation in the abdomen)

Commented [PM21]: Cystitis: inflammation of the bladder, usually caused by a bacterial infection. Symptoms: frequent urination, urgency to urinate, pain or burning during urination, cloudy or bloody urine, low-grade fever, pelvic discomfort or pressure, feeling of incomplete bladder emptying.

- Cystitis: inflammation of the bladder, usually caused by a bacterial infection. Symptoms: frequent urination, urgency to urinate, pain or burning during urination, cloudy or bloody urine, low-grade fever, pelvic discomfort or pressure, feeling of incomplete bladder emptying.
 - Hematuria – Grade 0-5
 - Urinary Incontinence – Grade 0-3
 - Urinary Frequency – Grade 0-2
 - Urinary Retention – Grade 0-5
 - Urinary Tract Obstruction – Grade 0-5
 - Urinary Tract Pain – Grade 0-3
 - Urinary Urgency – Grade 0-2
 -
- Reproductive System and Breast – Abdomen
 - Dyspareunia – Grade 0-3
 - Erectile Dysfunction – Grade 0-3
 - Pelvic Pain – Grade 0-3

Toxicity Assessment Categories for Pelvis Female

- Gastrointestinal – Pelvis (Female)
 - Lower Gastrointestinal Hemorrhage – Grade 0-5
 - BRBPR (fresh blood with bowel movements or on underwear) vs. melena (black, tarry stools indicative of digested blood, suggesting an upper gastrointestinal source of bleeding)
 - Proctitis – Grade 0-5
 - Inflammation of the lining of the rectum. Symptoms: rectal pain or discomfort, frequent urge to have a bowel movement, blood or mucus in the stool, feeling of rectal fullness, anal discharge or itching.
- ~~Musculoskeletal and Connective Tissue – Pelvis (Female)~~
 - ~~Pelvic Soft Tissue Necrosis~~ – Grade 0, 2-5
- ~~Nervous System – Pelvis (Female)~~
 - ~~Neuralgia~~ – Grade 0-3
- Renal and Urinary – Pelvis (Female)
 - ~~Chronic Kidney Disease~~ – Grade 0-5
 - Cystitis Noninfective – Grade 0-5
 - Urinary Incontinence – Grade 0-3
 - Hematuria – Grade 0-5
 - Urinary Frequency – Grade 0-2
 - Urinary Retention – Grade 0-5
 - Urinary Tract Obstruction – Grade 0-5
 - Urinary Tract Pain – Grade 0-3
 - ~~Urinary Urgency~~ – Grade 0-2
- Reproductive System and Breast – Pelvis (Female)
 - Pelvic Pain – Grade 0-3
 - Vaginal Dryness – Grade 0-5
 - Vaginal Hemorrhage – Grade 0-5
 - Vaginal Stricture – Grade 0-5
 - Abnormal narrowing or constriction of the vaginal canal, often due to scar tissue formation secondary to RT. Symptoms: difficulty or pain during intercourse (dyspareunia), difficulty inserting tampons or undergoing pelvic exams, reduced vaginal elasticity or shortening, recurrent vaginal infections, vaginal discharge or bleeding.
- Vascular
 - Lymphedema – Grade 0-3
 - ~~Thromboembolic Event~~ – Grade 0-5
 - Hot Flashes – Grade 0-3

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Commented [PM23]: Inflammation of the lining of the rectum. Symptoms: rectal pain or discomfort, frequent urge to have a bowel movement, blood or mucus in the stool, feeling of rectal fullness, anal discharge or itching.

Commented [PM24]: Abnormal narrowing or constriction of the vaginal canal, often due to scar tissue formation secondary to RT. Symptoms: difficulty or pain during intercourse (dyspareunia), difficulty inserting tampons or undergoing pelvic exams, reduced vaginal elasticity or shortening, recurrent vaginal infections, vaginal discharge or bleeding.

Toxicity Assessment Categories for Pelvis Male

- Gastrointestinal – Pelvis (Male)
 - Abdominal Pain – Grade 0-3
 - Bloating – Grade 0-2
 - Constipation – Grade 0-5
 - ~~○ Dry Mouth – Grade 0-3~~
 - ~~○ Dysphagia – Grade 0-5~~
 - ~~○ Enterovesical Fistula – Grade 0-5~~
 - Fecal Incontinence – Grade 0-3
 - Gastric Fistula – Grade 0-5
 - Lower Gastrointestinal Hemorrhage – Grade 0-5
 - ~~○ Mucositis Oral – Grade 0-5~~
 - Proctitis – Grade 0-5
 - Rectal Hemorrhage – Grade 0-5
 - Rectal Pain – Grade 0-3
 - ~~○ Rectal Mucositis – Grade 0-5~~
 - Rectal Stenosis – Grade 0-5
 - Evidenced by pencil thin stools
 - Rectal Ulcer – Grade 0-5
 - Small Intestinal Obstruction – Grade 0-5
- General Disorders and Administration Site Conditions – Pelvis (Male)
 - Edema Limbs – Grade 0-3
- Renal and Urinary – Pelvis (Male)
 - Bladder Spasm – Grade 0-3
 - Cystitis Noninfective – Grade 0-5
 - Hematuria – Grade 0-5
 - Urinary Frequency – Grade 0-2
 - Urinary Incontinence – Grade 0-3
 - Urinary Retention – Grade 0-5
 - Urinary Tract Obstruction – Grade 0-5
 - Urinary Tract Pain – Grade 0-3
 - Urinary Urgency – Grade 0-2
- Reproductive System and Breast – Pelvis (Male)
 - Ejaculation Disorder – Grade 0-2
 - Ex) retrograde ejaculation, dry ejaculate
 - Erectile Dysfunction – Grade 0-3

Commented [PM25]: E.g. pencil thin stools

Commented [PM26]: Retrograde ejaculation, dry ejaculate

Toxicity Assessment Categories for Bone

- Musculoskeletal and Connective Tissue – Bone
 - Bone Pain – Grade 0-3
 - Edema Limbs – Grade 0-3
 - Joint Range of Motion Decreased – Grade 0-3

◆ ~~General – Skin~~

- ~~Alopecia – Grade 0-2~~
- ~~Erythroderma – Grade 0-5~~
- ~~Pain of Skin – Grade 0-3~~
- ~~Pruritis – Grade 0-3~~
- ~~Rash Acneiform – Grade 0-5~~
- ~~Skin Hyperpigmentation – Grade 0-2~~
- ~~Skin Hypopigmentation – Grade 0-2~~
- ~~Skin Induration – Grade 0-2~~
- ~~Skin Ulceration – Grade 0-5~~
- ~~Telangiectasia – Grade 0-2~~

Toxicity Assessment Categories for Spine (Not currently a disease site in EPIC)

- Musculoskeletal and Connective Tissue – Spine
 - Pain (Persistent back or neck pain, which can be worse at night or during rest)
- Neurological Symptoms:
 - Weakness or numbness in the arms or legs
 - Decreased sensation or tingling
 - Saddle anesthesia
 - Difficulty walking or impaired coordination
 - Bladder and Bowel Dysfunction
 - Loss of bladder or bowel control (incontinence) or difficulty urinating.
- Paralysis (location dependent):
 - Cervical Spine (Neck) Tumors:
 - Tumors in this region can affect the nerve pathways that serve both the upper and lower extremities
 - Paralysis or weakness can be seen in the arms, hands, and possibly the legs
 - Difficulty with fine motor tasks, such as buttoning a shirt. Loss of balance and coordination
 - Neck pain
 - Respiratory difficulties if the tumor severely compresses the upper spinal cord
 - Thoracic Spine (Mid-back) Tumors:
 - This region mainly affects the trunk and lower extremities
 - Paralysis or weakness in the legs
 - Numbness or altered sensation around the torso in a band-like pattern
 - Bowel or bladder dysfunction.
 - Lumbar Spine (Lower back) Tumors:
 - Affects the lower part of the spinal cord and cauda equina (a bundle of nerve roots descending from the end of the spinal cord)
 - Weakness or paralysis in one or both legs
 - Bowel or bladder dysfunction
 - Altered sensation or numbness in the lower extremities or perineal region
 - Sacral Spine (Base of the Spine) Tumors:
 - Affects the lowest part of the spine
 - Bowel or bladder dysfunction
 - Sexual dysfunction
 - Numbness or altered sensation in the buttocks, perineal area, and, occasionally, backs of the thighs