

Table 2 – Resources illustrating organ parameters

Table 2 is a reference guide for accessing site-specific sources to assist with the delineation of the structures from Table 1. The list is not exhaustive, and other resources may be available in the medical literature and in clinical trial protocols to assist in OAR delineation for specific clinical scenarios.

Central Nervous System	
Normal tissue	Resources
<i>brain</i> <i>brainstem</i> <i>cochlea</i> <i>constrictor</i> <i>lips</i> <i>mandible</i> <i>optic chiasm</i> <i>optic nerve</i> <i>oral cavity</i> <i>parotid</i> <i>pituitary</i> <i>spinal cord (cervical)</i> <i>submandibular gland</i> <i>supraglottic larynx</i> <i>temporal lobe</i> <i>thyroid</i>	CT-based delineation of organs at risk in the head and neck region: DAHANCA, EORTC, GORTEC, HKNPCSG, NCIC CTG, NCRI, NRG Oncology and TROG consensus guidelines. [27]
<i>cauda equina</i>	Stereotactic body radiotherapy for the treatment of spinal metastases. [28]
<i>hippocampus</i>	Hippocampal Contouring: A Contouring Atlas for RTOG 0933 [29]
Head and Neck	
Normal tissue	Resources
<i>scalp</i>	Tumor Directed, Scalp Sparing Intensity Modulated Whole Brain Radiotherapy for Brain Metastases. [30]
<i>cochlea</i> <i>cornea</i> <i>eye/globe</i> <i>hippocampus</i> <i>lacrimal gland</i> <i>lens</i> <i>optic chiasm</i> <i>optic nerves</i> <i>pituitary</i> <i>retina</i>	Organs at risk in the brain and their dose-constraints in adults and in children: A radiation oncologist’s guide for delineation in everyday practice. [31]
<i>cochlea</i>	Contouring the Middle and Inner Ear on Radiotherapy Planning Scans. [32]
<i>constrictors</i> <i>larynx</i>	Intensity-modulated radiotherapy of head and neck cancer aiming to reduce dysphagia: early dose-effect relationships for the swallowing structures. [33] Delineation of organs at risk involved in swallowing for radiotherapy treatment planning. [34]
<i>internal carotid artery</i>	Simple carotid-sparing intensity-modulated radiotherapy technique and preliminary experience for T1-2 glottic cancer. [35]
<i>parotid</i>	A radiation oncologist’s guide to contour the parotid gland. [36]

Normal Tissue Contouring

Thoracic	
Normal tissue	Resources
<i>brachial plexus</i>	Development and Validation of a Standardized Method for Contouring the Brachial Plexus: Preliminary Dosimetric Analysis Among Patients Treated with IMRT for Head-and-Neck Cancer. [9]
<i>brachial plexus bronchus esophagus lung proximal bronchial tree ribs spinal cord (thoracic)</i>	Consideration of Dose Limits for Organs at Risk of Thoracic Radiotherapy: Atlas for Lung, Proximal Bronchial Tree, Esophagus, Spinal Cord, Ribs, and Brachial Plexus. [37]
<i>breast chestwall heart</i>	Delineation of target volumes and organs at risk in adjuvant radiotherapy of early breast cancer: National guidelines and contouring atlas by the Danish Breast Cancer Cooperative Group. [38] NRG Breast Cancer Atlas for Radiation Therapy Planning – Consensus Definition [39]
<i>great vessels heart</i>	Development and validation of a heart atlas to study cardiac exposure to radiation following treatment for breast cancer. [40] A cardiac contouring atlas for radiotherapy [41]
<i>Left anterior descending artery</i>	Inter-observer variation in delineation of the heart and left anterior descending coronary artery in radiotherapy for breast cancer: A multi-centre study from Denmark and the UK [42] Development of delineation for the left anterior descending coronary artery region in the left breast cancer radiotherapy: An optimized organ at risk [43]
Abdominal	
Normal tissue	Resources
<i>common bile duct duodenum esophagus gall bladder gastroesophageal junction kidney liver pancreas spinal cord (lumbar) spleen stomach</i>	Upper abdominal normal organ contouring guidelines and atlas: A Radiation Therapy Oncology Group consensus. [44]
Pelvic	
Normal tissue	Resources
<i>genitalia_men genitalia_women</i>	Proposed genitalia contouring guidelines in anal cancer intensity-modulated radiotherapy. [45]
<i>anorectum bladder bowel bag</i>	Pelvic normal tissue contouring guidelines for radiation therapy: A Radiation Therapy Oncology Group consensus panel atlas. [46]

Normal Tissue Contouring

<i>colon</i> <i>femoral head</i> <i>penile bulb</i> <i>prostate</i> <i>rectum</i> <i>sigmoid colon</i> <i>small bowel</i>	
<i>sacral plexus</i>	Development of a Standardized Method for Contouring the Lumbosacral Plexus: A Preliminary Dosimetric Analysis of this Organ at Risk Among 15 Patients Treated with Intensity-Modulated Radiotherapy for Lower Gastrointestinal Cancers and the Incidence of Radiation-Induced Lumbosacral Plexopathy [47]