

## **References**

*(Please note: These are my picks, accumulated over several years. There is overlap with QUANTEC's references, but they are not identical)*

### **Background**

Burman C., G.J. Kutcher, B. Emami, M. Goitein. (1991). "Fitting of normal tissue tolerance data to an analytic function." *Int J Radiat Oncol Biol Phys* 21: 123-135.

Emami B., Lyman J., Brown A. et al, (1991). "Tolerance of normal tissue to therapeutic irradiation." *Int J Radiat Oncol Biol Phys* 21: 109-122.

### **Reviews and General**

International Journal of Radiation Oncology, Biology, Physics Vol 31 #5, 1995 (Late Normal Tissue Injury issue)

Seminars in Radiation Oncology, Vol 11 Issue 3 (Partial Organ Irradiation) , Vol 17, Issue 2( "Late Normal Tissue Injury") and Vol 18 Issue 4 (Hypofractionation)

*Particularly:*

Kong F-M, Pan C, Eisbruch A, and Ten Haken RK (2007). "Physical models and simpler dosimetric descriptors of radiation late toxicity." *Sem Rad Onc* 17: 108-120.

Milano MT, Constine LS, Okunieff P (2007). "Normal tissue tolerance dose metrics for radiation therapy of major organs." *Sem Rad Onc* 17: 131-140.

Basic Clinical Radiobiology (Now 3<sup>rd</sup> Edition), G. Gordon Steel editor, Oxford University Press, NY

### **Spinal Cord Toxicity**

#### **Spinal Cord - general**

Ang KK, Jiang GL, Feng Y, et al, (2001) "Extent and kinetics of recovery of occult spinal cord injury", *Int Jnl Radiat Oncol Biol Phys* 50: 1013-1020

Fowler J.F., Bentzen S.M., Bond S.J. et al, (2000) "Clinical radiation doses for spinal cord: the 1998 international questionnaire", *Radiother and Oncol* 55: 295-300

Martel M, Eisbruch A, Lawrence T.S. et al . (1997). "Spinal cord dose from standard head and neck irradiation: implications for three-dimensional treatment planning", *Radiother and Oncol* 47: 185-189.

Marucci L., Niemierko A., Liebsch N.J. (2004). "Spinal cord tolerance to high-dose fractionated 3D conformal proton-photon irradiation as evaluated by equivalent uniform dose and dose volume histogram analysis." *Int Jnl Radiat Oncol Biol Phys* 59: 551-555.

Schultheiss T.E., L.E. Kun, K.K. Ang, L.C. Stephens. (1995). "Radiation response of the central nervous system." *Int Jnl Radiat Oncol Biol Phys* 31: 1093-1112.

Schultheiss, T (2008): "The radiation dose-response of the human spinal cord", *Int J Radiat Oncol Biol Phys* 71:1455–1459.

#### **Cord Retreatment**

Grosu A., N. Andratschke, C. Nieder and M. Molls . (2002). "Retreatment of the spinal cord with palliative radiotherapy." *Int J Radiat Oncol Biol Phys* 52:1288-1292.

Milker-Zabel S, et al, ( 2003), Clinical results of retreatment of vertebral bone metastases by stereotactic conformal radiotherapy and intensity-modulated RT, *Int Jnl Radiat Oncol Biol Phys* 55, 162-67.

Nieder C., L. Milas, K.K.Ang. (2000). "Tissue tolerance to reirradiation." *Sem Rad Onc* 10, 200-209.

Nieder C et al,; (2005), Proposal of human spinal cord reirradiation dose based on collection of data from 40 patients, *Int Jnl Radiat Oncol Biol Phys* 61, 851-855

Nieder C, Grosu AL, Andratschke NH and Molls M (2006): "Update of human spinal cord reirradiation tolerance based on additional data from 38 patients." *Int J Radiat Oncol Biol Phys* 66: 1446-1449.

Rades et al, (2006), Spinal reirradiation after short-course RT for metastatic spinal cord compression, *Int Jnl Radiat Oncol Biol Phys* 63, 872-875.

#### **Cord: Spatial effects**

Bijl H.P., van Luijk P., Coppes R.P. et al. (2003). "Unexpected changes of rat cervical spinal cord tolerance caused by inhomogeneous dose distributions". *Int Jnl Radiat Oncol Biol Phys* 57: 274-281.

Bijl HP, van Luijk P, Coppes RP et al, (2006) "Influence of adjacent low-dose fields on tolerance to high doses of protons in rat cervical spinal cord", *Int Jnl Radiat Oncol Biol Phys* 64: 1204-1210.

### **Cauda Equina**

Pieters RS et al, 2006; Cauda equina tolerance to high-dose fractionated irradiation, *Int Jnl Radiat Oncol Biol Phys* 64: 251-57

## **Lung Toxicity**

### **Reviews and animal studies**

Khan MA, Van Dyk J, Yeung IWT, Hill RP (2003), "Partial volume rat lung irradiation: assessment of early DNA damage in different lung regions and effects of radical scavengers", *Radiother and Oncol* 66: 95-102.

Marks LB, Yu X, Vujaskovic Z, et al.(2003), "Radiation-induced lung injury" *Sem Rad Oncol* 13: 333-345.

Morgan GW and Breit SN (1995), "Radiation and the lung: a reevaluation of the mechanisms mediating pulmonary injury", *Int Jnl Radiat Oncol Biol Phys* 31: 361-369

Seppenwoolde Y and Lebesque JV (2001), "Partial irradiation of the lung", *Sem Rad Onc* 11, 247-258.

Travis EL, Liao ZX, Tucker SL (1997), "Spatial heterogeneity of the volume effect for radiation pneumonitis in mouse lung", *Int J Radiat Oncol Biol Phys* 38: 1045-1054

### **Lung cancer patients**

Bradley JD, Hope A, ElNaqa I, et al (2007), "A nomogram to predict radiation pneumonitis, derived from a combined analysis of RTOG 9311 and institutional data." *Int J Radiat Oncol Biol Phys* 69: 985-992.

Graham MV, Purdy JA, Emami B, et al (1999), "Clinical dose-volume histogram analysis for pneumonitis after 3D treatment for non-small cell lung cancer (NSCLC)", *Int J Radiat Oncol Biol Phys* 45: 323-329.

Hernando M.L., L.B. Marks, G.C.Bentel, et al. (2001). "Radiation-induced pulmonary toxicity: a dose-volume histogram analysis in 201 patients with lung cancer." *Int J Radiat Oncol Biol Phys* 51: 650-659.

Hope AJ, Lindsay PE, El Naqa I, et al (2006). "Modeling radiation pneumonitis risk with clinical, dosimetric, and spatial parameters." *Int J Radiat Oncol Biol Phys* 65: 112-124.

Kim, T. H., K. H. Cho, et al. (2005). "Dose-volumetric parameters for predicting severe radiation pneumonitis after three-dimensional conformal radiation therapy for lung cancer." *Radiology* 235(1): 208-215.

Kocak Z, Borst GR, Zeng J et al.(2007). "Prospective assessment of dosimetric/physiologic-based models for predicting radiation pneumonitis." *Int J Radiat Oncol Biol Phys* 67: 178-186.

Kong, F. M., J. A. Hayman, et al. (2006). "Final toxicity results of a radiation-dose escalation study in patients with non-small-cell lung cancer (NSCLC): predictors for radiation pneumonitis and fibrosis." *Int J Radiat Oncol Biol Phys* 65(4): 1075-86.

Kwa S.L.S., Lebesque J.V., Theuws J.C. et al (1998). "Radiation pneumonitis as a function of mean lung dose: an analysis of pooled data of 540 patients." *Int J Radiat Oncol Biol Phys* 42: 1-9.

Kwa S.L.S., Theuws J.C.M., Wagenaar A. et al. (1998). "Evaluation of two dose-volume histogram reduction models for the prediction of radiation pneumonitis" *Radiother and Oncol* 48: 61-69.

Marks LB, Munley MT, Bentel GC, et al (1997), "Physical and biological predictors of changes in whole-lung function following thoracic irradiation", *Int Jnl Radiat Oncol Biol Phys* 39: 563-570.

Marks L.B.(2002). "Dosimetric predictors of radiation-induced lung injury." *Int J Radiat Oncol Biol Phys* 54:313-316.

Martel M.K., R.K.Ten Haken, M.B.Hazuk, A.T.Turrisi, B.A.Fraass, A.S.Lichter . (1994). "Dose-volume histogram and 3-D treatment planning evaluation of patients with pneumonitis." *Int J Radiat Oncol Biol Phys* 28: 575-581.

Oetzel,D., P. Schraube, et al. (1995). "Estimation of pneumonitis risk in three-dimensional treatment planning using dose-volume histogram analysis." *Int J Radiat Oncol Biol Phys* 33(2): 455-60.

Rancati, T., G. L. Ceresoli, et al. (2003). "Factors predicting radiation pneumonitis in lung cancer patients: a retrospective study." *Radiother Oncol* 67(3): 275-83.

Rodrigues G., Lock M., D'Souza D. et al. (2004). "Prediction of radiation pneumonitis by dose-volume histogram parameters in lung cancer – a systematic review." *Radiother and Oncol* 71: 127-138.

Schallenkamp JM, Miller R, Brinkmann DH, et al. (2007). "Incidence of radiation pneumonitis after thoracic irradiation: dose-volume correlates." *Int J Radiat Oncol Biol Phys* 67: 410-416.

Seppenwoolde Y., Lebesque J.V., De Jaeger K., et al. (2003). "Comparing different NTCP models that predict the incidence of radiation pneumonitis." *Int J Radiat Oncol Biol Phys* 55: 724-735.

Seppenwoolde Y, DeJaeger K, Boersma LJ, et al (2004), "Regional differences in lung radiosensitivity after radiotherapy for non-small-cell lung cancer", *Int J Radiat Oncol Biol Phys* 60: 748-758.

Wang S, Liao Z, Wei X et al. (2006) "Analysis of clinical and dosimetric factors associated with treatment-related pneumonitis (TRP) in patients with non-small-cell lung cancer (NSCLC) treated with concurrent chemotherapy and three-dimensional conformal radiotherapy (3D-CRT)". *Int J Radiat Oncol Biol Phys* 66: 1399-1407.

Yorke E.D., Jackson A., Rosenzweig K.E. et al. (2002). "Dose-volume factors contributing to the incidence of radiation pneumonitis in non-small-cell lung cancer patients treated with three-dimensional conformal radiation therapy." *Int J Radiat Oncol Biol Phys* 54:329-339.

Yorke ED, Jackson A, Rosenzweig KE, et al, (2005), "Correlation of dosimetric factors and radiation pneumonitis for non-small-cell lung cancer patients in a recently completed dose escalation study", *Int J Radiat Oncol Biol Phys* 63: 672-682.

### **Mesothelioma patients**

Allen AM, Czerminska M, Jänne PA et al (2006). "Fatal pneumonitis associated with intensity-modulated radiation therapy for mesothelioma." *Int J Radiat Oncol Biol Phys* 65: 640-645.

Rice DC, Smythe WR, Liao Z, et al (2007) "Dose-dependent pulmonary toxicity after postoperative, intensity-modulated radiotherapy for malignant pleural mesothelioma." *Int J Radiat Oncol Biol Phys* 69: 350-357.

Miles EF, Larrier NA, Kelsey CR et al (2008). "Intensity-Modulated radiotherapy for resected mesothelioma: the Duke experience", *Int J Radiat Oncol Biol Phys* 71: 1143-1150.

### **Esophageal Cancer patients**

Wang SL, Liao Z, Vaporciyan AA et al (2006). "Investigation of clinical and dosimetric factors associated with postoperative pulmonary complications in esophageal cancer patients treated with concurrent chemoradiotherapy followed by surgery." *Int J Radiat Oncol Biol Phys* 64: 692-699

Tucker SL, Liu HH, Wang S, et al (2006) "Dose-volume modeling of the risk of postoperative pulmonary complications among esophageal cancer patients treated with concurrent chemoradiotherapy followed by surgery", *Int J Radiat Oncol Biol Phys* 66: 754-761

### **Airways**

Kelsey CR et al, (2006), Radiation-induced narrowing of the tracheobronchial tree: an in-depth analysis, *Lung Cancer* 52: 111-116

Miller KL, et al (2005), Bronchial stenosis: an underreported complication of high-dose external beam RT for lung cancer, *Int J Radiat Oncol Biol Phys* 61: 64-69

### **Rectal Toxicity**

Akimoto T, Muramatsu H, Takahashi M, et al,(2006), "Rectal bleeding after hypofractionated radiotherapy for prostate cancer: correlation between clinical and dosimetric parameters and the incidence of grade 2 or worse rectal bleeding", *Int J Radiat Oncol Biol Phys* 60: 1033-1039

Brenner DJ (2004), "Fractionation and late rectal toxicity", *Int J Radiat Oncol Biol Phys* 60: 1013-1015

Cahlon O, Zelefsky MJ, Shippy A, et al (2007). "Ultra-high dose (86.4 Gy) IMRT for localized prostate cancer: toxicity and biochemical outcomes." *Int J Radiat Oncol Biol Phys* in press

Chan LW, Xia P, Gottschalk AR, et al (2008): "Proposed rectal dose constraints for patients undergoing definitive whole pelvic radiotherapy for clinically localized prostate cancer." *Int J Radiat Oncol Biol Phys* In Press.

Fenwick JD, Khoo V,S, Nahum AE, (2001), "Correlation between dose-surface histograms and the incidence of long-term rectal bleeding following conformal or conventional radiotherapy treatment of prostate cancer", *Int J Radiat Oncol Biol Phys* 49: 473-480

Fiorino C, Cozzarini C, Vavassori V, et al (2002). "Relationships between DVHs and late rectal bleeding after radiotherapy for prostate cancer: analysis of a large group of patients pooled from three institutions." *Radiother and Oncol* 64: 1-12.

Fiorino C, Fellin G, Rancati T, et al (2008). "Clinical and dosimetric predictors of late rectal syndrome after 3D-CRT for localized prostate cancer: preliminary results of a multicenter prospective study." *Int J Radiat Oncol Biol Phys* 70: 1130-1137.

Fowler JF, Ritter ZMA, Chappell RJ, Brenner DJ, (2003), "What hypofractionated protocols should be tested for prostate cancer?" *Int J Radiat Oncol Biol Phys* 56: 1093-1104

Heemsbergen WD, Hoggeman MS, Hart GAM, et al (2005). "Gastrointestinal toxicity and its relation to dose distributions in the anorectal region of prostate cancer patients treated with radiotherapy." *Int J Radiat Oncol Biol Phys* 61: 1011-1018.

Jackson A (2001), "Partial irradiation of the rectum", *Sem Rad Onc* 11, 215-223.

Jackson A, Skwarchuk MW, Zelefsky MJ, et al (2001), "Late rectal bleeding after conformal radiotherapy of prostate cancer (II): volume effects and dose-volume histograms", *Int J Radiat Oncol Biol Phys* 49: 685-698.

Lee WR, Hanks GE, Hanlon AL, et al (1996), "Lateral rectal shielding reduces late rectal morbidity following high dose three-dimensional conformal radiation therapy for clinically localized prostate cancer: further evidence for a significant dose effect", *Int J Radiat Oncol Biol Phys* 35: 251-257

Peeters STH, Lebesque JV, Heemsbergen WD, et al (2006), "Localized volume effects for late rectal and anal toxicity after radiotherapy for prostate cancer", *Int J Radiat Oncol Biol Phys* 64: 1151-1161.

Peeters ST, Hoogeman MS, Heemsbergen WE et al (2006a), "Rectal bleeding, fecal incontinence and high stool frequency after conformal radiotherapy for prostate cancer: normal tissue complication probability modeling", *IJROBP* 66: 11-19

Rancati T, Fiorino C, Gagliardi G et al (2004). "Fitting late rectal bleeding data using different NTCP models: results from an Italian multicentric study (AIROPROS0101)" *Radiother and Oncol* 73: 21-32

Tucker SL, Cheung R, Dong L, et al, (2004), "Dose-volume response analysis of late rectal bleeding after radiotherapy for prostate cancer", *Int J Radiat Oncol Biol Phys* 59: 353-365.

Tucker SL, Zhang M, Dong L, et al (2006), "Cluster model analysis of late rectal bleeding after IMRT of prostate cancer: a case-control study", *Int J Radiat Oncol Biol Phys* 64: 1255-1264

Zapatero A, Garcia-Vicente F, Modolell I, et al, (2004) "Impact of mean rectal dose on late rectal bleeding after conformal radiotherapy for prostate cancer: dose-volume effect", *Int J Radiat Oncol Biol Phys* 59: 1343-1351

Zelefsky MJ, Chan H, Hunt M et al (2006) "Long-term outcome of high dose intensity modulated radiation therapy for patients with clinically localized prostate cancer." *J Urol* 176: 1415-1419

### **Future Directions**

El Naqa I, Bradley J, Blanco AI, et al, (2006), "Multivariable modeling of radiotherapy outcomes, including dose-volume and clinical factors", *Int Jnl Radiat Oncol Biol Phys* 64: 1275-1286

Jackson A, Yorke ED, Rosenzweig KE (2006), "Atlas of complication incidence: a proposal for a new standard for reporting the results of radiotherapy protocols", *Sem Rad Onc* 16: 260-268.