

functioning according to SAQ scores. More than 60% of men reported decreased urinary function at 12 months compared to baseline. Changes in HRQOL at 12 months for the subscales of FACT-P are illustrated in the table.

Conclusions: The rate of incontinence is low one year following PB but many men have persistent urinary symptoms. Of those men potent at baseline, roughly 80% maintain the ability to have an erection one year following PB although 80% of men also report a decline in sexual function according to the SAQ. At one year more men reported a decline in PWB, PCS and SFWB subscales but more men reported an improvement in the EWB, FWB and RWD subscales.

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Subscale of FACT-P	Improved	Stable	Declined
Physical Well-being (PWB)	11%	58%	31%
Social/Family Well-being (SFWB)	20%	55%	25%
Emotional Well-Being (EWB)	44%	53%	4%
Functional Well-being (FWB)	36%	47%	16%
Relationship with Doctor (RWD)	18%	80%	2%
Prostate Cancer Symptom (PCS)	16%	53%	32%

78 Significant Relationship Between Hemoglobin (Hb) Levels and Quality of Life (QOL) During Chemoradiation: Findings From an Incremental Analysis of a 442-Patient, Prospective, Community-Based Epoetin Alfa Study

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Purpose/Objective: Anemia is a frequent complication of cancer and its associated treatment. Its prevalence and severity are well documented in the medical (Groopman & Itri. JNCI. 1999; 91:1616-1634) and radiation oncology (Shasha. Semin Hematol. 2001; 38[Suppl 7]:8-15) literature. Using data from a prospective, 16-week, community-based study of once-weekly epoetin alfa in 442 eligible (ie, Hb ≤11 g/dL) solid tumor patients receiving curative-intent concomitant or sequential chemoradiation, an incremental (marginal) analysis was conducted to examine the relationship between Hb and QOL and to identify the change in Hb level associated with the greatest QOL gain. This type of statistical analysis had been performed for two similar studies in which 4382 anemic cancer patients received three-times-weekly epoetin alfa during chemotherapy alone or with radiation (Cleeland et al. Proc ASCO. 1999; 18:574a. Abstract 2215).

Materials/Methods: QOL was evaluated using a 100-mm linear analog scale assessment (LASA) of Activity, Energy, and Overall QOL. Correlation analysis was used to evaluate the relationship between Hb and LASA scores. Data were further evaluated to determine the Hb level at which a 1-g/dL increase produced the greatest QOL benefit. Control variables for the incremental analysis included age, gender, ethnicity, tumor type, transfusion status, number of units transfused, presence of radiation therapy, presence of chemotherapy, and baseline QOL.

Results: There was a positive correlation between higher Hb levels and higher Activity, Energy, and Overall QOL scores, with correlation coefficients of 0.33, 0.32, and 0.29, respectively (p<0.05 for each value). When the Hb and LASA data presented below were graphically plotted, relationships between Hb level and Activity, Energy, and Overall QOL were shown to be nonlinear. This relationship was maintained after controlling for all covariates mentioned above. Increases in LASA were noted across the clinically relevant Hb range of 8-14 g/dL. The greatest LASA increase on all scales per 1-g/dL change in Hb occurred when the Hb level increased from 11-12 g/dL.

Conclusions: We observed a significant correlation between Hb and QOL at all Hb levels assessed in patients receiving combined or sequential radiation and chemotherapy. Improvement in QOL is seen with each 1-g/dL increase in Hb, with maximal incremental gain in QOL achieved when Hb is increased from 11-12 g/dL. These findings are consistent with those from the Cleeland et al incremental QOL analysis, which also found that the greatest QOL improvement occurred when Hb was increased from 11-12 g/dL. Epoetin alfa improves QOL and functional status in anemic cancer patients receiving radiation and chemotherapy. QOL and functional status improvements can be attributed to Hb increases, demonstrating the importance of early (ie, Hb ≤12 g/dL) and aggressive treatment of anemia in these patients. Treatment of anemia commonly encountered in irradiated cancer patients provides an opportunity to improve postradiation outcomes and well-being.

1-g/dL Increase in Hb(g/dL)	LASA Increases(mm)		
	Activity	Energy	Overall QOL
<8 ⇒ 9	3.3	7.5	4.8
9 ⇒ 10	4.6	2.4	2.6
10 ⇒ 11	1.1	2.9	3.3
11 ⇒ 12	10.0	7.5	8.9
12 ⇒ 13	0.3	3.1	3.4
13 ⇒ 14	2.3	0.01	1.6