1

Supplemental table 1. Relation between healthy liver-absorbed dose (Gy) and clinical toxicity based on linear regression analyses with parenchymal dose as the dependent variable.

		CTCAE grade 0 -V	
Independent variable	**Number of patients with toxicity**	**Mean change in healthy liver-absorbed dose (Gy) per step increase in CTCAE grade category (95% CI); p-value**	Adjusted for treated fraction
Any variable, highest grade	22	-3.2 (-14.3 - 7.9); 0.55	-3.6 (-14.5 - 7.2); 0.49
Abdominal pain	10	1.3 (-60.8 - 63.4); 0.96	-10.5 (-71.9 - 50.9); 0.70
Nausea	8	-1.6 (-15.2 – 11.9); 0.81	-19.5 (-58.8 - 19.8); 0.26
Fatigue	19	-2.7 (-32.0 - 26.5); 0.85	-1.9 (-27.4 - 23.6); 0.88
Anorexia	6	-0.04 (-27.1 - 27.0); 0.99	4.3 (-28.3 - 36.8); 0.71

The mean change indicates the average increase or decrease in healthy liver-absorbed dose per step increase in CTCAE grade toxicity. For example, for abdominal pain: a unit increase in toxicity results in an increase in average parenchymal dose of 1.3 Gy.

2

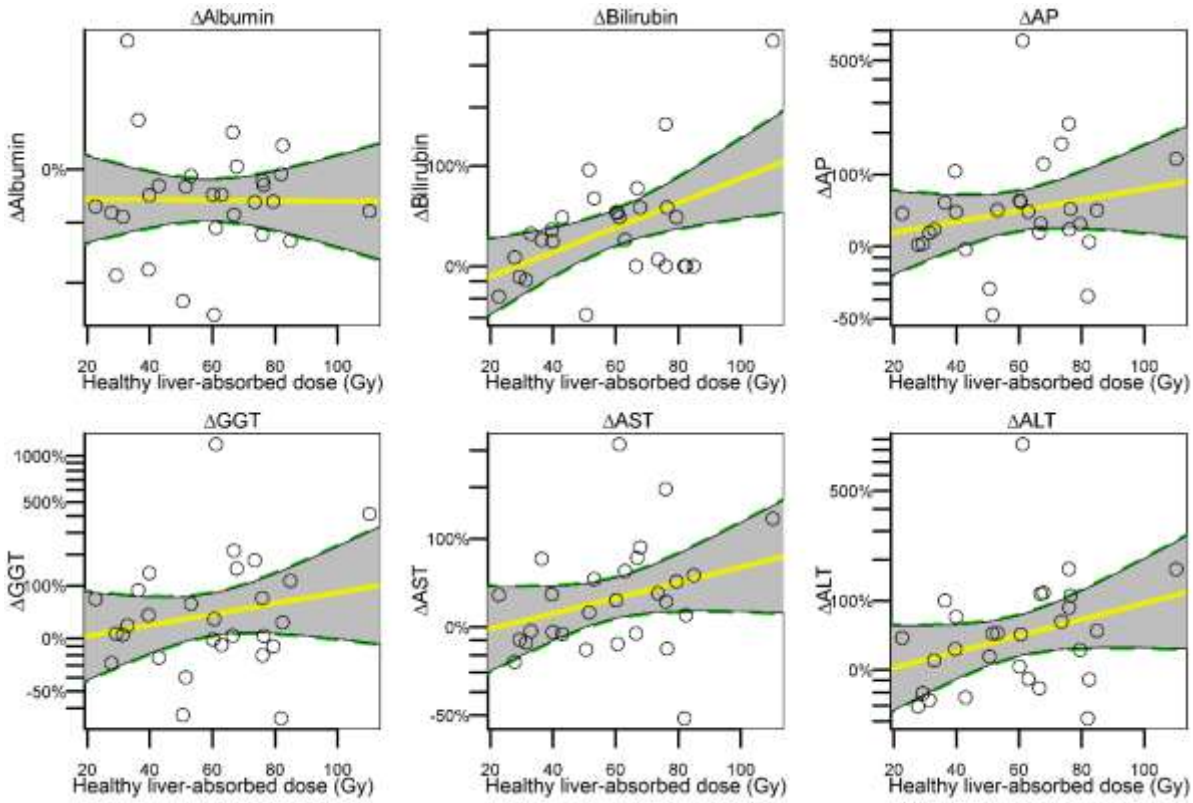
3

Supplemental table 2. Relation between healthy liver-absorbed dose (Gy) and cumulative laboratory toxicity over three months, based on linear regression analyses with healthy liver-absorbed dose as the dependent variable.

Independent variable	**Number of patients with toxicity**	*CTCAE grade 0-V* **Mean change (95% CI); p-value** *Unadjusted*	*Adjusted for tumor dose and response, and treated fraction.*
Albumin	5	-4.8 (-17.6; 7.9); 0.44	-4.7 (-21.9; 12.4); 0.57
Bilirubin	3	12.7 (-2.2; 27.6); 0.091	22.8 (4.3;41.4); 0.019
AP	10	5.3 (-5.3;16.0); 0.31	2.5 (-8.3; 13.2), 0.64
GGT	8	8.1 (-0.44;16.7); 0.062	4.7 (-4.3; 13.6); 0.28
ASAT	9	7.1 (-7.9;22.1); 0.34	0.5 (-14.8;15.8); 0.95
ALAT	11	14.4 (0.7;28.1); 0.041	9.7 (-5.1;24.6); 0.18

The mean change indicates the average increase or decrease in healthy liver-absorbed dose per unit increase in CTCAE grade toxicity.

4



Supplemental figure 1. Graphical representation of the change in laboratory measurements vs. healthy liver-absorbed dose in Gy with 95% confidence interval

Supplemental table 3. Relation between healthy liver-absorbed dose (Gy) and change in laboratory parameters over three months, based on linear regression analyses with healthy liver-absorbed dose (per 10 Gy) as the independent variable

Dependent variable	**Mean percent change (95% CI); p-value**	
	Unadjusted	*Adjusted for tumor dose and response, and treated fraction.*
ΔAlbumin	-1.2% (-3.3;1.1); 0.91	-0.8% (-4.2;2.6); 0.93
ΔBilirubin	8.1% (1.1;15.5); 0.012	11.9% (0.5;23.3); 0.028
ΔAP	3.9% (-6.2;15.1); 0.34	3.1% (-11.6;20.2); 0.59
ΔGGT	5.2% (-9.2;21.8); 0.41	6.0% (-14.5;31.4); 0.51
ΔASAT	4.3% (-4.1;13.5); 0.21	0.5 (-14.8;15.8); 0.95
ΔALAT	6.1% (-4.7;18.0); 0.20	1.0% (-15.7;21.0); 0.82

The mean change indicates the increase or decrease in average toxicity per 10 Gy increase in healthy liver-absorbed dose.